ARE COMBAT UNITS WITHIN A US ARMY MANUEVER
BRIGADE'S AREA OF OPERATION PREPARED AND
RESOURCED TO SUCCESSFULLY SECURE, CLEAR,
AND CONTROL THE BRIGADE ROAD NETWORK?

A thesis presented to the Faculty of the U.S. Army
Command and General Staff College in partial
fulfillment of the requirements for the
degree

MASTER OF MILITARY ART AND SCIENCE
General Studies

by

THOMAS V. OLSZOWY, MAJ, USA ARMY
B.S.E., Mansfield University, Mansfield, Pennsylvania, 1988

Fort Leavenworth, Kansas
2001

Approved for public release; distribution is unlimited.

20011011 140

REPORT DOCUMENTATION PAGE

Form Approved
OMB No. 0704-0188

1. AGENCY USE ONLY (Leave blank)	2. REPORT DATE 1 Jun 01	3. REPORT TYPE AND DATES COVERED Master's Thesis 2 Aug 00—1 Jun 01

4. TITLE AND SUBTITLE
ARE COMBAT UNITS WITHIN A US ARMY MANUEVER BRIGADE'S AREA OF OPERATION PREPARED AND RESOURCED TO SUCCESSFULLY SECURE, CLEAR, AND CONTROL THE BRIGADE ROAD NETWORK?

5. FUNDING NUMBERS

6. AUTHOR(S)
MAJ Thomas V. Olszowy

7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES)
U.S. Army Command and General Staff College
ATTN: ATZL-SWD-GD
1 Reynolds Ave.
Ft. Leavenworth, KS 66027-1352

8. PERFORMING ORGANIZATION REPORT NUMBER

9. SPONSORING/ MONITORING AGENCY NAME(S) AND ADDRESS(ES)

10. SPONSORING/MONITORING

11. SUPPLEMENTARY NOTES

12a. DISTRIBUTION/AVAILABILITY STATEMENT

Approved for public release; distribution is unlimited.

12b. DISTRIBUTION CODE

A

13. ABSTRACT (Maximum 200 words)
Road nets provide the life-blood to all sustained operations by a US Army maneuver brigade. Joint Readiness Training Center and Battle Command Training Program trends indicate a failure to master the skills required to ensure road nets are not interdicted in major theater of war or small-scale contingency operations. At the Joint Readiness Training Center brigade-level units suffer high losses along the brigade road network in comparison to small enemy units employed. This is despite significant advantages along with a plethora of material and doctrine available to train and execute route clearance and control operations. With the increased occurrence of nonlinear battlefields in small-scale contingencies using coalition forces, successful coordination and execution of route security, clearance, and control becomes critical. This leads to the central questions. Are typical United States Army maneuver brigades able to successfully secure, clear, and control road networks within their area of operation? What is the current state of doctrine concerning route operations? What is the current state of tactics, techniques, and procedures concerning route operations? Answering these questions will provide conclusions and recommendations to improve maneuver brigade operations.

14. SUBJECT TERMS
Route clearance, route security, rear area, main supply route, route operations, route control, convoy security, road network

15. NUMBER OF PAGES
98

16. PRICE CODE

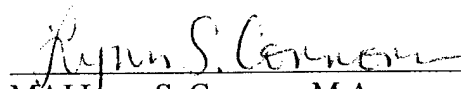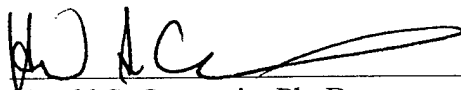| 17. SECURITY CLASSIFICATION OF REPORT UNCLASSIFIED	18. SECURITY CLASSIFICATION UNCLASSIFIED	19. SECURITY CLASSIFICATION OF ABSTRACT UNCLASSIFIED	20. LIMITATION OF ABSTRACT UL

MASTER OF MILITARY ART AND SCIENCE

THESIS APPROVAL PAGE
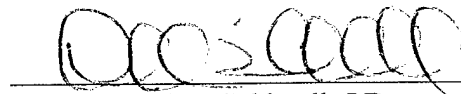
Name of Candidate: MAJ Thomas V. Olszowy

Thesis Title: Are Combat Units within a US Army Maneuver Brigade's Area of Operation Prepared and Resourced to Successfully Secure, Clear, and Control the Brigade Road Net?

Approved by:

_____, Thesis committee Chairman
MAJ Lynn S. Connors, M.A

_____, Member
Harold S. Orenstein, Ph. D.

_____, Member/Member, Consulting Faculty
COL Donald S. Caldwell, J.D.

Accepted this 1st day of June 2001 by:

_____, Director, Graduate Degree Programs
Philip J. Brookes, Ph.D.

The opinions and conclusions expressed herein are those of the student author and do not necessarily represent the views of the U.S. Army Command and General Staff College or any other governmental agency. (References to this study should include the foregoing statement.)

ABSTRACT

ARE COMBAT UNITS WITHIN A US ARMY MANUEVER BRIGADE'S AREA OF OPERATION PREPARED AND RESOURCED TO SUCCESSFULLY SECURE, CLEAR, AND CONTROL THE BRIGADE ROAD NETWORK?, MAJ Thomas V. Olszowy, 98 pages.

Road nets provide the life-blood to all sustained operations by a US Army maneuver brigade. Joint Readiness Training Center and Battle Command Training Program trends indicate a failure to master the skills required to ensure road nets are not interdicted in major theater of war or small-scale contingency operations. At the Joint Readiness Training Center brigade-level units suffer high losses along the brigade road network in comparison to small enemy units employed. This is despite significant advantages along with a plethora of material and doctrine available to train and execute route clearance and control operations. With the increased occurrence of nonlinear battlefields in small-scale contingencies using coalition forces, successful coordination and execution of route security, clearance, and control becomes critical. This leads to the central questions. Are typical United States Army maneuver brigades able to successfully secure, clear, and control road networks within their area of operation? What is the current state of doctrine concerning route operations? What is the current state of tactics, techniques, and procedures concerning route operations? Answering these questions will provide conclusions and recommendations to improve maneuver brigade operations.

ACKNOWLEDGMENTS

TABLE OF CONTENTS

Page

ACRONYMS

AAR	After Action Review
ACR	Armored Cavalry Regiment
ADA	Air Defense Artillery
BOS	Battlefield Operating Systems
BSA	Brigade Support Area
BCTP	Battle Command Training Program
C2	Command and Control
CP	Command Post
CPX	Command Post Exercise
CS	Combat Support
C/S/M	Countermobility, Survivability, Mobility
EN	Engineer
FM	Field Manual
FSB	Forward Support Battalion
FTX	Field Training Exercise
IPB	Intelligence Preparation of the Battlefield
JRTC	Joint Readiness Training Center
LACR	Light Armored Cavalry Regiment
LOC	Line of Communication
LOGPAC	Logistics Package
METT-TC	Mission, Enemy, Terrain and weather, Troops, Time, Civil

MP	Military Police
MSR	Main Supply Route
MTOE	Modified Table of Organization and Equipment
MTP	Mission Training Plan
MTW	Major Theater of War
NAI	Named Area of Interest
SSC	Small Scale Contingency
STX	Situation Training Exercise
TTP	Tactics, Techniques, and Procedures

ILLUSTRATIONS

CHAPTER I

INTRODUCTION

Commanders and staffs do not synchronize/coordinate movement control.[1]

BCTP

Overview

Main supply routes sustain the life blood to Army brigade operations and below. Historical training center trends indicate a failure of brigades to master the skills required to ensure main supply routes (MSRs) as well as the entire road network are not interdicted in major theater of war or small-scale contingency (SSC) operations. Due to supply route interdiction and subsequent disjointed responses at the Joint Readiness Training Center (JRTC), brigade units suffer high losses after initial entry into an area of operation along the road network in comparison to small enemy units employed.

This is despite significant advantages along with a multitude of material and doctrine available to train and execute route clearance, security, and control operations. These advantages include greater firepower, superior mobility, extensive communications, and aviation support. By contrast recent deployments to Somalia, Haiti, Bosnia, and Kosovo, operations seem to have occurred without difficulty. With the increased occurrence of non-contiguous battlefields in SSCs using coalition forces, successful coordination and execution of supply route security, clearance, and control is critical. Failure to attain proficiency can lead to fratricide with US forces, as well as coalition forces, and could potentially result in a significant tactical US defeat against a less powerful adversary.

1

This leads to the main question: Are combat units within a typical US Army brigade combat team's area of operation (AO) prepared and trained to successfully secure, clear, and control road networks? This leads to the secondary question: What is the current state of doctrine concerning route operations? This leads finally to the tertiary question: What is the current state of tactic, techniques, and procedures (TTP) concerning road networks?

Background

The decision to pursue this research question was born from the frustration of personally observing a disastrous attempt during a training exercise by a brigade to conduct route operations within its area of operation. Eight lightly armed opposing force soldiers inflicted forty six vehicle losses and dozens of personnel casualties in the same area over a four-day period. Friendly vehicles operated across the battlefield along the road network with little command and control and no situational awareness. A verbal standing operating procedure (SOP) of never moving with fewer than three vehicles was employed. This simply became an easy way for opposing forces to put out of action friendly vehicles faster, as the typical configuration of a first sergeant, five-ton wrecker, and ambulance moving alone is an inadequate force to deal with an ambush. Following this exercise an attempt was made to develop a brigade SOP to deal with route security, clearance, and movement control at the JRTC.

The development of the SOP was not an easy task. As research for the SOP progressed there was concern with inconsistencies between doctrine and reality of tactics, techniques, and procedures (TTPs) in executing route tasks. Several leaders and observer-controllers at the JRTC who reviewed the SOP expressed surprise, not with the contents,

2

but with the fact that an MSR SOP had been included. The SOP was developed for the unit, but not well trained or utilized. Discussions with combat service support personnel deployed to Somalia, Bosnia, and Kosovo indicate a similar inconsistency between doctrine and execution of route-related missions and operations.

It is important to remain clear on the context of the problem. The problems do not seem to begin until after initial entry into an area of operation by combat forces. Combat forces seem to do very well with initial clearance. Route operations contain three related tasks, failure at any one will cause problems. Once combat forces initially clear a road network, then sustainment of the routes should begin, that is when problems begin to occur with route security, clearance, and control. In many cases it seems that combat forces regard road network sustainment as a purely combat service support task.

History

Napoleon Bonaparte lost his campaigns in Spain and Russia for many reasons not the least of which was heavy interdiction of his supply lines by unconventional and small conventional forces. His supply lines became centers of gravity with disastrous results for French forces. During the American Civil War, Confederate leaders, such as Forrest, Wheeler, and Stuart, advanced supply line interdiction to a fine art. After many hard lessons Union commanders finally committed sufficient troops and developed proper tactics to deal with this problem. The Confederates would see their own supply route interdiction tactics used against them on a massive scale later in the war as men, such as Sheridan, Grierson, and Sherman, attacked deep into Confederate supply lines.

World War II and the dawn of full mechanization brought new problems. Road networks became even more critical with massive demand for parts, food, fuel, and

ammunition to supply large armies operating over large areas of operations. Enemy forces could move into friendly rear areas quickly with wheeled or tracked vehicles, or fixed wing aircraft. Mass produced land mines that were simple to operate, smaller, and more lethal became available in increasing numbers and allowed road networks to be interdicted quickly. An example of how quickly mechanization affected road networks came soon after the start of World War II. On 23 June 1941, the Sixth Panzer Division operating in an advance on Leningrad had an entire brigade-sized combat force tied up for two days by a single Russian KV-1 tank sitting astride the MSR.[2] Numerous German forces along the eastern front had to be moved from front-line positions to fight an even harder battle behind the lines against swarms of Russian partisan targeting road net works.

With the end of World War II the world saw and continues to see few major theater of war operations. Those major wars have seen their share of supply route problems. From Afghan rebels catching Soviet columns in mountain passes and mountainside roads to North Vietnamese ambushing US forces in the jungle, the criticality of road networks is evident. With the exception of the Soviet Union during the Cold War, the US has not faced and does not now face an opponent capable of defeating the United States in a direct confrontation. Therefore, each new SSC will likely feature an opponent whose military capabilities are far less developed than the full capabilities of the United States military, deploying forces widely dispersed, not clearly identifiable, and involving multiple nations. The SSCs against those asymmetrical forces will be joint and international efforts with units from all arms of the US military, a coalition force comprised of forces from numerous nations, as well as involved civilian agencies. The

situation will probably not be a major theater war (MTW) and will more than likely by an SSC with brigade-sized units deployed. What will be in common in any potential MTW or SSC is the need for effective road networks. This is clear from the examples of Bosnia and Kosovo, where US Army supply lines extend from a US brigade sector, through numerous multinational unit sectors, and through several countries.

The essence of the current question can be identified by observing trends over a five-year span from the JRTC which indicate the following:

1. Too many units fail to execute a sustained route clearance plan.[3]

2. Consistently, brigade staffs have difficulty in developing detailed route clearance plans.[4]

3. Battalion task forces do not routinely conduct route clearance as a combined arms operations.[5]

Compare those comments with this assessment of Soviet efforts on Afghanistan and there appears to be a widespread problem. The first statement appears to be a very optimistic view of US Army abilities.

> The Soviets are not taking steps that are standard in Western Armies. There seems to be no road opening forces on these routes. Evidently, there are no "bait-and-hunt" decoy convoys. Rapid reaction forces supporting the convoy escorts are not apparent, There is no evidence of any planning to use air mobile forces on likely guerrilla routes. Artillery fire support planning also seems absent. These examples fail to show map and terrain work to identify choke points, kill zones and ambush sites in advance. Reconnaissance forces seem road-bound. The effort appears passive and reactive.[6]

Assumptions

There are several assumptions upon which this thesis is based.

1. The US Army has a problem indicated by JRTC and Battle Command Training Program (BCTP) trends with route security, clearance, and control at maneuver brigade level and below. This is despite the fact that road networks were utilized in Bosnia, Kosovo, and Somalia without significant losses or degradation of unit logistics.

2. This problem involves such primary users as armor, infantry, engineers, military police, transportation, and ordnance, as well as any unit that use any part of the road network within a brigade area of operation. Branch doctrines complement one another and consistent with an overall road network doctrine to achieve that synergistic effect the Army strives to accomplish with standardized procedures for route operations.

3. Effective doctrine and TTP can be measured in a qualitative manner.

4. In an acknowledgment of emerging doctrine and technology, the assumption is made that regardless of technology or new force structure, a route will still need to be secured, cleared, and controlled.

Limitations and Delimitation

This thesis will not suggest that a radical change is needed in doctrine or (TTP) that support those skills needed to fight and win under any conditions. What it will do is take a hard look at the doctrine and TTP that support operations in the very unstable and unconventional world within which the US Army must succeed. It will only explore whether or not the maneuver commander has the doctrinal guidelines and supporting TTP to succeed in that task should the commander decide to use it as part of his mission essential task list (METL). It will try to determine if what the US Army does to plan and execute route operations. This thesis will not attempt to dictate that route security, clearance, and movement control, become a part of the maneuver commander's METL.

6

This thesis will try to provide doctrinal guidance based on existing concepts and make recommendations where current doctrine may fail or be inadequate. It will not attempt to generate the approved school solution for TTP. It in no way will attempt to decide that attack, defend, or conduct tactical movements are not as important as route security, clearance, and control. There will be no attempt to include Force XXI doctrine or interim brigade combat team doctrine or TTP as both of those issues are still emerging and in a great state of flux.

This thesis acknowledges the extensive series of soldier and leader articles within many forums proposing doctrine and TTP changes and recommendations. However, that which is not official current Army doctrine or TTP, will not be used in the analysis of the potential problem. If, because of analysis, a solution needs to be recommended, many of these unofficial sources could be used in those recommendations.

Army doctrine is currently under going change, and new doctrine is emerging. With the new Army operations Field Manual (FM) 3-0, *Operations*, and others due out shortly along with many other branch updates, doctrinal baselines may change significantly. Equipment, manning, and force organization within the US Army is changing quickly. Any draft of FM 3-0 will certainly be included in this study. While a final version may change, reviewing it will provide a glimpse into what the Army hierarchy is thinking. What is certain is that the world and the Army mission must remain relevant to current conditions. If route security, clearance, and control are part of that equation, are the combat maneuver brigades ready?

Definitions

Definitions of routes, security, clearance, and movement control are critical. FM 101-5-1, *Operational Terms and Graphics*, provides the initial baseline for this doctrinal investigation with the following definitions. These doctrinal definitions are the starting point, but it may be found that these definitions in and of themselves need modifications. Most of the following definitions come from FM 101-5-1, *Operational Terms and Graphics*. It must be noted that FM 101-5-1, *Operations Terms and Symbols*, is currently under revision with review and input from all branches within the Army, and with greater focus on joint operations.

Area of Operation: A geographical area, including the air space above, usually defined by lateral, forward, and rear boundaries assigned to a commander, by a higher commander, in which he has responsibility and the authority to conduct military operations.

Clear: A tactical task to remove all enemy forces and eliminate organized resistance in an assigned zone, area, or location by destroying, capturing, or forcing the withdraw of enemy forces such that they cannot interfere with the friendly unit's ability to accomplish its mission.

Doctrine: Fundamental principles by which the military forces or elements thereof guide their actions in support of national objectives. It is authoritative but requires judgement in application.

Main Supply Route (MSR): The route or routes designated within an area of operations upon which the bulk of traffic flows in support of military operations. It is

important to note that any route used within an area of operation must have the same standard applied not just those designated as main supply routes.

Movement control: The planning, routing, scheduling, and control of personnel and cargo movements over lines of communication: also an organization responsible for these functions.

Operation: A military action or the carrying out of a strategic, tactical, service, training, or administrative, military mission; the process of carrying on combat, including movement, supply, attack, defense, and maneuvers needed to gain the objectives of any battle or campaign.

Rear Area: For any particular command, the area extending forward from its rear boundary to the rear of the area assigned to the next lower level of command.

Route Operations: This is recommended addition to doctrine. Route operations encompass and include all those tasks related to movement control, route security, and route clearance. A further discussion of this definition can be found in chapter 5.

Security: Measures taken by a military unit, an activity or installation to protect itself against all acts designed to, or that may, impair its effectiveness (the route).

Tactics, Techniques, and Procedures (TTP): The art and science of employing available means to win battles and engagements. The methods used by troops and/or commanders to perform assigned missions and functions, specifically the methods of employing equipment and personnel. The standard and detailed course of action that describes how to perform a task.

Significance of the Study

Why, despite all the training, equipment, and technology do brigade combat teams have great difficulty in executing route operations? A large amount of official and unofficial information exists in various forums on the subject of route clearance, security, and control, yet no significant or sustained improvement seems to be occurring according to JRTC and BCTP trends.

By definition, combat maneuver commanders have responsibility for all operations within the brigade or battalion area of operation. The maneuver commander must ensure that he has synchronized and coordinated all applicable battlefield operating systems (BOS) and ensure that all of the components that make up the BOS elements are present. Route security, clearance, and control is a command issue. The problem cannot be willed away by tasking the military police to establish traffic control points to "secure" the route. The engineer squad cannot clear five kilometers of road by itself. Route reconnaissance is not conducted by the lead elements of the resupply column detonating a mine. Cavalry units cannot patrol indefinitely without relief. A quick glance of after-action reviews (AAR) and trends from the JRTC will show commanders doing exactly that and worse. Route operations cannot be conducted separately from the combat operation. It is an integral part. Under certain circumstances route operations require significant combat forces and under all circumstances require integration and synchronization.

This chapter has laid out the basic question and baseline of study. Chapter 2 will explore the many official resources available that influence the question. That chapter will also focus on the primary doctrinal references for the critical branches involved.

Chapter 3 will outline the methodology and criteria to analyze the resources found in chapter 2. Chapter 4 will examine the existing doctrinal resources to try to determine why this question exists at all. Chapter 5 will provide a consolidation of issues and recommend solutions if possible. The end state is to provide a comprehensive study of the doctrine, the TTP, the training, the problems, and the recommendations or solutions to ensure successful MSR operations.

Summary

Clearly, if BCTP and JRTC trends are accurate, the US Army has a problem at all levels conducting route operations. The culprits may be inadequate doctrine, weak TTPs, or nonexistent training at brigade and below. This thesis will try to determine the root cause or causes and provide a recommended solution. It may be that contributors to the problem exist in all areas. New equipment and formations will not change the requirement to ensure road networks remain cleared under control.

It would be fool hardy to assume the United States has no peer opponents, a few do exist, however most opponents will not be in that category. If any potential enemies learned anything from 1990 to 2000, it is that they do not need to compete in open battle against US forces. They only need to create the perception of defeat through losses or forcing US forces into embarrassing situations. Those enemies will revert to the actions at which they can excel and win.

They will execute hit-and-run raids and ambushes behind the front-line focusing on combat support (CS) and combat service support units (CSS) units while the bulk of US combat forces are deployed along a mythical "front line" to fight an enemy that is not there, destroying the four fuel trucks that feed the 14 M1A2 tank engines, and inflicting

11

continuous loss on CSS troops while combat forces flounder ineffectually trying to react to contact after it has occurred. The underlying desire is to fix the potential problem before Army road networks are faced with a determined enemy as they once were in Vietnam and Korea.

---

[1] BCTP, *Battle Command Training Program Perceptions Briefing* (Fort Leavenworth, KS: BCTP, 18 June 1999).

[2] US Department of the Army, *Small Unit Actions During the German Campaign In Russia* (Washington DC: Government Printing Office, July 1953), 76-84.

[3] JRTC Trends, *2QFY98 & 3QFY98 NO.99-7*, (Fort Polk, LA, Joint Readiness Training Center, accessed 5 Feb 2001); available from http://call.army.mil/call/homepage/ctcbull.htm#JRTCbtn

[4] JRTC Trends and TTPs, *4QFY98 & 1QFY99 NO.00-2*, (Fort Polk, LA, Joint Readiness Training Center, accessed 5 Feb 2001); available from http://call.army.mil /call/ctc_bull/00-2/ta6.htm#5

[5] JRTC Trends, *1st, 2nd, 3rd Quarters, FY95*, (Fort Polk, LA, Joint Readiness Training Center, accessed 5 Feb 2001); available from http://call.army.mil/call /ctc_bull/jr1-3q95/1-3q95tc.htm

[6] Foreign Military Studies Office, *The Bear Went Over the Mountain: Soviet Combat Tactics in Afghanistan* (Portland, OR: Cass Publishers, 1998), 150.

CHAPTER 2

LITERATURE REVIEW

<u>Introduction</u>

This chapter is a literature review of existing official doctrine and TTP at brigade level and below concerning the issue of route operations. The review is based on the three main thesis questions: Are combat units within a typical US Army brigade combat team's area of operation prepared and trained to successfully secure, clear, and control MSRs? What is the current state of doctrine concerning route operations? What is the current state of TTP concerning route operations?

The questions revolve around doctrinal issues. To date, very little previous analysis has been conducted on existing field manuals (FMs) and TTP that address route operations. Every attempt was made to use and review the most current doctrine available. However, this was not possible in all cases as some doctrine has not been updated or is currently being updated and in draft form. Background material related to the problem, especially trends, is the one large exception and is reviewed back to 1993. Most field manuals reviewed have publication dates after 1996, with the most recent updates in 2000. Most material was available from the Army Digital Training Library; in some cases, however, the most recent updates were obtained from various branch-specific schools. It must be noted again that many manuals are currently undergoing revision. A clear trend across many of the new drafts is attention paid to full spectrum operations. Joint operations are also stressed.

This review is broken into several categories. These are JRTC and Battle Command Training Program (BCTP) AARs and trend reports, FMs and TTP by branch,

Modified Tables of Organization and Equipment (MTOE), and unofficial sources. This review will not address quality or sufficiency of specific content in each of these categories, but rather only why the source was selected and what the source contains in general.

Joint Readiness Training Center Trend Reports and Battle Command Training Program Perceptions

This portion of the review provides the scope of the problem and asks the question - do units have sufficient doctrinal and TTP resources to adequately execute route operations? Based on the trend reports, the breadth of the potential problem in terms of units affected can be established. The JRTC and BCTP trend reports are based on existing doctrine and evaluations of unit planning and execution. The conversion of compiled unit AARs into trend reports is most useful in determining the scope of the problem. The one problem with these reports and trends is that while they clearly state what is going wrong, they do not always state why it went wrong.

The BCTP at Fort Leavenworth conducts simulation exercises for corps, division, and brigade level units within the United States Army every year. The simulations deal with combined and joint operations across conventional operations. The BCTP staff provides detailed AARs to units, as well as doctrine-based trend summaries of unit performance.

The combat training centers (CTCs) also provide doctrine-based AARs and trend reports. Of the CTCs, the JRTC is most notable for its trend reports on route operations. While the Combat Maneuver Training Center trends in Germany also provides some information dealing with route operations, the NTC trends reports have very little information addressing route operations. This no doubt due to the tremendous logistical

requirements to operate a heavy maneuver brigade in the field balanced against the training objectives in the past that were focused on what were viewed as conventional operations. Training objectives at the various training centers are currently under going significant changes. Disruption of the MSR would degrade training of other critical tasks

In general, all of these sources say the same basic thing. At all levels route operations are not executed as a combined arms effort, operations are not coordinated, and staffs do not understand the process. Commanders and operations officers (S3) and planners do not incorporate route operations into plans, nor do they anticipate the result of losses along MSRs due to lack of integration of security, sufficient clearance efforts, and uncoordinated movement control. This is a consistent trend from BCTP and JRTC for the last ten years. Based on the trends, units have been unable to execute and continue to fail in execution of route operations. This supports the basic question with several potential answers; Do the units have the proper tools, do they lack the ability to use the tools, or do they simply ignore the tools?

Field Manuals and Tactics, Techniques, and Procedures

The FMs and TTPs provide the most significant portion of the review, since the former are the source of existing doctrine, while the latter speak to the application of this doctrine. Certain branches have been selected for review as those branches represent those critical BOS related to route operations. The thesis question is centered on operations at the maneuver brigade level and below. The US Army only employs armor, mechanized, and infantry brigades as maneuver brigades, along with the two remaining cavalry regiments of similar size. While other brigade sized structures exist, those organizations do not conduct similar operations. The following list is a compilation of

15

official material forming the core of the review. It must be noted to prevent confusion that there is a current transition under way of the manual numbering systems. Some newer manuals and drafts use the new TRADOC numbering system while older manuals not yet updated retain the old numbering system. In cases where this occur, both the old and new manual number will appear.

1. Armor/Mechanized Infantry Brigade Operations: FM 71-3, *Armor and Mechanized Infantry Brigade* (January 1996); ARTEP 71-3-MTP, *Mission training Plan for the Heavy Brigade Command Group and Staff* (February 1997).

2. Armor/Mechanized Infantry Battalion Operations: FM 71-2 (August 1994).

3. Cavalry Squadron/Troop Operations: FM 17-95, *Cavalry Operations* (December 1996); FM 17-97, *Cavalry Troop* (Oct 95), and FM 17-98, *Scout Platoon* (April 1999).

4. Light Infantry Brigade Operations: FM 7-30, *The Infantry Brigade* (October 2000).

5. Light Infantry Battalion Operations: FM 7-20, *The Infantry Battalion* (December 2000).

6. Engineers Battalion/Company Operations: FM 3-34.*2(FM90-13-1) Combined Arms Breaching Operations* (August 2000).

7. Military Police Operations: FM 19-4, *Military Police Battlefield Circulation Control, Area Security, and Enemy Prisoner of War Operations* (May 1993).

8. Transportation Operations: FM 55-10, *Movement Control* (February 1999).

9. Training Circulars: TC 7-98-1, *Stability and Support Operations Training Support Package* (June 1997).

10. Army Doctrine: FM 100-5, *Army Operations* (May 1993); ST 3-0 *Army Operations* (October 2000); FM 71-100, *Division Operations* (August 96); FM 3-100.40(DRAG)*Tactics* (December 2000); FM 7-15(Final Draft) *The Army Universal Task List* (February 2001).

Battalion and Brigade Field Manuals

Within armor, mechanized, and light infantry doctrine FM 71-2, FM 71-3, FM 7-20, FM 7-30, and FM 71-123 cover the full range from brigade to battalion operations. These manuals and associated mission training plans cover most aspects of armor, mechanized, infantry operations within the United States Army. The Preface to FM 71-3 reads in part: "This manual is intended to assist brigade commanders, their staffs, and subordinate commanders in planning and conducting brigade operations -- Incorporated into this manual are tactics, techniques, and procedures (TTP) for the tactical employment of the armored and mechanized brigade and tactical standing operating procedures. FM 71-3 is the foundation for the continuing development of TTPs."[1]

FM 71-2, FM 7-20, FM 71-3, FM 7-30, and FM 71-3 all provide the same effort at different levels of organization within armor, mechanized, and light infantry battalions and brigades. Each is designed to provide leaders and staffs the knowledge needed to plan and execute infantry and armor operations. Each manual addresses missions, capabilities, limitations, organization, functions, offensive, and defensive operations, CSS, and numerous other areas of interest. Each manual also addresses each of the BOS in varying detail in mission performed in support of the brigade or battalion.

Cavalry Field Manuals

FM 71-95, FM 17-97, and FM 17-98 make up the primary cavalry operations set. FM 17-95 serves the same purpose for cavalry operations as FM 71-3 does for armor/mechanized operations. The Preface to FM 17-95 reads in part:

"This manual applies to the armored cavalry regiment (ACR) and all division cavalry squadrons (armored, light, air). While the focus is on regiments and squadron, principles and fundamentals presented apply to all subordinate troops and companies and separate cavalry troops. FM 17-95 sets forth-doctrinal principles that guide the conduct of cavalry operations. It addresses specific tactics, techniques, or procedures as necessary to clarify or emphasize these doctrinal principles."[2]

FM 17-97 and FM 17-98 accomplish the same at troop and platoon levels. Both manuals have been included due to the use of troop and platoon-sized elements in route operations. Because of the nature of cavalry organization and missions, cavalry units, especially troops and platoons, can operate anywhere within the battlefield framework. Maneuver brigades may have cavalry attached, under operational control, or just moving through the brigade sector. Cavalry squadrons, troops, and platoons to include air cavalry are often involved with route operations.

Combat Support Field Manuals

Within the typical armor, mechanized, or light infantry brigade there are several branches that are critical in the clearance, security, and control of routes: engineer, transportation, and military police. The FM 3-34.2 contains very specific doctrine and TTP on engineer planning and execution of route clearance. This manual provides a very detailed overview of route clearance. Recently updated, it appears to include many

recommendations made in unofficial articles written since 1990. FM 19-4 is an older manual currently under major revision. It provides detailed doctrine and TTP for military police operations. As most brigades will have a military police platoon attached and the military police are often heavily involved in rear operations, FM 19-4 becomes critical to security and control of routes. FM 19-4 specifically addresses MP operations at maneuver brigade level.

Combat Service Support Manuals

FM 55-10 addresses movement control doctrine, tactics, techniques, and procedures for all forms of transportation units and missions. This manual focuses on operations above division level and provides only a small portion on route control at division and below. It does provide the over arching doctrine for route control from a transportation view. This manual contains very specific and detailed doctrinal guidance and TTP on how to move and control convoys from one point to another. It also provides very specific functions and roles from battalion level through corps.

Army Doctrine and Higher Headquarters Field Manuals

It is necessary to understand the higher headquarters doctrine, as any absence of doctrine at brigade level should look to division or higher for guidance. This is especially true in terms of battlefield framework, BOS, principles of war, tenets of Army operations, and similar issues. Those overarching manuals provide insight into how the Army as a whole is expected to operate.

Draft Manuals

In some cases, there are draft manuals currently in draft or in final draft form. There are many changes ongoing within Army doctrine and when possible these changes will be reviewed to ensure the most accurate picture of what current doctrine and TTP are and what the vision for tomorrow may be. While these manuals are not officially approved and in use, they do provide a glimpse into what Army leadership has recognized as problems or changes in focus. These drafts may change prior to final approval, but will be reviewed if available. It is important to remember that while drafts may contain a preview of doctrine that will be implemented, and may show a solution or continuation of existing problems, draft doctrine is not yet approved. As such, unapproved doctrine will not be used in determining current problems and effective doctrine, but may provide recommended solutions.

Modified Tables of Organization and Equipment

MTOEs provide details on equipment, manning, and organizations of the battalions, brigades, and support units involved in brigade level operations. The MTOE is useful for comparing to doctrinal requirements given to a specific unit or staff. The MTOE must be included to ensure that existing doctrine has not exceeded the capabilities of the organization involved to perform an assigned mission or task. The MTOE also verifies what grade of officer is in the critical planning positions with battalions and brigades.

Related Articles

There are a large number of articles published over the last ten years that address aspects of route security, clearance, and control. Many of these articles contain

suggestions and recommendation for doctrinal and TTP changes or additions. While these articles do not represent official doctrine or TTP, they do provide insight to AARs and trends issued by the CTCs and BCTP.

This category includes sources, such as Center for Army Lessons Learned, Joint Readiness Training Center Lessons Learned, and articles from professional magazines such as *Armor, Infantry, Engineer,* and *Army Logistician.* Other problems exist within many of these sources. Many of these articles are written by an individual or group from a specific point of view, specific unit or specific mission and may not be doctrinally based. Some are just "war stories" concerning a specific action and contain little analysis. The fact that so many articles exist is a potential indicator of a problem within current doctrine and TTP. Taken in total these articles may provide recommendations if it is determined that existing doctrine or TTP is insufficient.

Summary

A detailed analysis of the associated field manuals and mission training plans is critical to determine why difficulties are experienced in conducting route security, control, and clearance. However, this analysis must be uniform across the resources to ensure no bias or missed information. Chapter 3 will outline that process. The sheer number of articles within professional magazines seems to indicate a lack of understanding of route operations and that is certainly supported by trends.

---

[1] US Department of the Army, FM 71-3, *The Armored and Mechanized Infantry Brigade* (Washington DC: Government Printing Office, January 1996), ii.

[2] US Department of the Army, FM 17-95, *Cavalry Operations* (Washington DC: Government Printing Office, December 1996), v.

CHAPTER 3

METHODOLOGY

<u>Overview</u>

Despite the many published documents related to route security, clearance, and control, trends still indicate a problem with successful completion of route security, clearance, and control. A series of questions starting from doctrine down to the execution phase must be answered.

1. Is current doctrine from the various branches sufficient to provide guidelines for conducting route security, clearance, and control at brigade level and below?

2. Are current TTP sufficient to outline methods for conducting route security, clearance, and control for units to develop standing operating procedures and battle drills?

3. Are doctrine and TTP regarding route security, clearance, and control being trained at Combined Arms Service Staff School (CAS3) and Command and General Staff Officer College (CGSOC)?

<u>Measuring Doctrine</u>

Sufficiency of doctrine must be measured. The current version of FM 100-5, *Operations,* states, "Doctrine touches all aspects of the Army. It facilitates communications between Army personnel no matter where they serve, establishes a shared professional culture and approach to operations, and serves as the basis for curriculum in the Army School System."[1] FM 100-5 remains important, although ST 3-0, *Army Operations* is a final draft, it may be changed before final approval as FM 3-0, *Army Operations.* All officers have been trained with FM 100-5 up to this point.

However, the ST3-0 states nearly the same thing with the following: "Doctrine is the concise expression of how Army forces contribute to unified action in campaigns, major operations, battles, and engagements. While it compliments joint doctrine, Army doctrine also describes the Army's approach and contributions to full spectrum operations on land. Army doctrine is authoritative but not prescriptive . . . Doctrine touches all aspects of the Army. If facilitates communication among soldiers where they serve, contributes to a shared professional culture, and serves as curricula in the Army Education System. Army doctrine provides a common language and a common understanding of how Army forces conduct operations -- Army doctrine is detailed enough to guide operations, yet flexible enough to allow commanders to exercise initiative when dealing with specific tactical and operational situations."[2]

This thesis will define sufficient doctrine as doctrine that is clear and easily available, uses common terminology, and the same across all manuals. Doctrine that is incomplete, difficult to find within manuals, or difficult to understand prevents implementation of effective training and subsequently prevents successful completion of mission. Using this as a baseline, completeness, availability and training are used as criteria to determine sufficiency. Each branch specific manual will be analyzed, because there is no current unifying manual for route clearance, security, and control. The BOS will be used as a checklist to analyze the completeness of doctrine.

Completeness of Doctrine

Doctrine must ensure that all BOS are considered and integrated to ensure synchronized and synergistic mission accomplishment. Each manual will be analyzed to see if each of the BOS is present and integrated with the other BOS elements. Within

24

chapter 4 each manual will be analyzed to determine if BOS is included, if it is integrated with other BOS, and if it is sufficient to allow a planner or commander to make a plan or decision. If a BOS element is missing or incomplete, a quick analysis of what should be present will be given.

By using BOS as a basis for analyzing each manual, it can be determined if the manual is integrating, synchronizing, and planning for each BOS as needed. While TTP may dictate that some BOS will not be used in a particular situation, the basis must be in place. The analysis will look at BOS as it applies to long term sustainment of route security, clearance, and control, and not initial entry into an area of operation (AO). In many cases initial clearance by combat forces is done well but is usually a focused combat operation by a brigade. This is not the problem, sustaining the route after initial entry is the problem. FM 100-5 defines the BOS as follows.

Intelligence: "Intelligence operations are the organized efforts of a commander to gather and analyze information on the environment and the enemy."[3] As it relates to MSRs how intelligence will support the MSRs, how it is collected, and who collects it are important.

Maneuver: "Maneuver is movement related to the enemy to put him at a disadvantage. Commanders maneuver their forces to create the conditions for tactical and operational success."[4] The analysis will address how maneuvers are conducted and controlled along MSRs, and how well they are defined.

Fire Support (FS): "Fire support is the collective and coordinated employment of the fires of armed aircraft, land and sea-based indirect fire systems, and electronic warfare systems against ground targets to support land combat operations at both the

operational and tactical levels."[5] The analysis will address how fires are employed and controlled along MSRs.

Air Defense Artillery (ADA): "Air defense operations are key when generating combat power. They provide the force with protection from enemy air attack, preventing the enemy from seperating friendly forces while freeing the commander to fully synchronize maneuver and firepower."[6] The analysis will address how ADA is employed and controlled along road networks.

Mobility/countermobility/survivability (M/C/S): "Mobility operations preserve the freedom of maneuver of friendly forces. Countermobility missions include building obstacles and using smoke to hinder enemy maneuver. Survivability operations protect friendly forces from the effects of enemy weapon systems and from natural occurrences."[7] This is of critical importance in ensuring the MSRs remain cleared of obstacles. The analysis will address how engineers are employed along MSRs.

Combat service support (CSS): "Provides the physical means with which the force operate, from the production base and replacement centers in the US, to soldiers in contact with the enemy."[8] The MSR forward of a brigade rear boundary is the last leg of the long road from the US production base and the most important portion. However, keeping the MSR clear, controlled, and secured is a combat operation and not solely a logistics function. The analysis will address the methods of employing logistics assets in support of routes

7. Command and Control: "To command is to direct. Command at all levels is the art of motivating and directing soldiers and their leaders into action to accomplish missions. Control is inherent in battle command. Control monitors the status of

organizational effectiveness and identifies deviations from the set standards and corrects them. Reliable communications are central to both battle command and control. Effective battle command requires reliable signal support systems to enable the commander to conduct operations at varying operational tempo."[9] The analysis will look specifically at command post operations, communications, and responsibilities for planning and execution within staffs as it relates to route clearance, control, and security.

Completeness of Tactics, Techniques, and Procedures

The TTP can be measured in a similar way to doctrine. The TTP must be all inclusive. Every component of the BOS must be addressed under a variety of battlefield conditions. The TTP must use common terms that are doctrinally defined and definitions that mirror those doctrinal definitions. The end state of any TTP is to provide a clear, concise set of material to assist the maneuver commander under a variety of circumstances to accomplish the mission. An analysis of the TTP is important, as they derive from lessons learned over time and will provide a guideline on missions and task specifics. How the unit applies those TTP will vary from mission to mission. This thesis will try to provide the answers to whether or not existing TTP are sufficient and reasonably available to the staff officers and commanders responsible for mission accomplishment.

Availability

Doctrine and TTP must be easily available to those staff officers within a typical maneuver brigade responsible for executing doctrine. The manuals must be used in army schools, unit training, and part of unit publication accounts. If not easily available training suffers from a lack of resources. Leadership has many responsibilities during

27

any given day or mission and searching through manuals to locate cryptic information is most likely not a reasonable request. Doctrinal answers should be easy to locate and complete in the framework to provide sufficient guidance. Ideally, doctrine and applicable TTP should be located within one reference or at the very least clearly referenced so that the search for doctrine does not become the focus of the training event rather than the outcome.

Training

Doctrine must be trained if it is to be effective and the same applies to TTP. Lack of training, or proper training, may be the single largest contributor to poor execution of any task. Doctrine and TTP should appear in primary Army schools, such as the officer basic course and the advance course. It is even more important for doctrine and TTP to be instructed at CAS3 and resident and non-resident CGSOC, which are the primary army schools for training staff officers who serve from battalion through corps level. The staff officers training provided in these schools will serve the officers in the primary planning slots within battalions and brigade, i.e., those who have the greatest and most critical need for solid doctrinal training.

Summary

The intent is to determine if the commonly available manuals to a maneuver brigade contain sufficient information to train the non-commissioned officers, lieutenants, captains, and majors who do the bulk of planning and execution of MSR missions. There is clearly a problem and the cause must be determined. Chapter 4 will analyze the resources to begin unraveling the problem.

[1] US Department of the Army, FM 100-5, *Operations* (Washington DC: Government Printing Office, June 1993), 1-1.

[2] US Department of the Army, ST 3.0, *Operations* (Washington DC: Government Printing Office, October 00), 1-13 and 1-14.

[3] US Department of the Army, FM 100-5, *Operations* (Washington DC: Government Printing Office, June 93), 2-12.

[4] Ibid., 2-13.

[5] Ibid., 2-13.

[6] Ibid., 2-13.

[7] Ibid., 2-14.

[8] Ibid.

[9] Ibid., 2-14 and 2-15.

CHAPTER 4

ANALYSIS

A lack of clear doctrinal guidance for route clearance and limited training . . . .
stands as two significant reasons why units achieve only limited success in the
clearance of routes.[1]

CALL Video, Route Clearance

Overview

Based on chapter 3, "Methodology," each current official resource must be

assessed in accordance with stated parameters. This chapter will analyze each source in

the same order as reviewed in chapter 2. The information within these resources will

provide the basis to determine if the average leader within a maneuver brigade has the

tools available to plan and execute successful route security, clearance, and control

missions as part of a brigade combat mission. This is not just a consideration of the

doctrine related to the officially designated MSR and to how the MSR is used, but rather

to the entire road network within a brigade area of operation. The order of analysis will

be JRTC and BCTP trends, field manuals and associated MTPs, MTOEs, and related

manuals and articles.

Route Security, Clearance, and Control

It is important to understand the facets of the issue before analyzing the resources

available to a maneuver brigade. Movement control, security, and clearance are defined

in chapter 1. Specific tasks support each of those definitions within the manuals

available. These tasks provide the basis for understanding how a field commander will

interpret his mission. It is clearly understood that mission, enemy, terrain, weather,

support available, time available, and civil considerations (METT-TC) will greatly alter

30

the amount of effort placed on the brigade road network. Not all road networks become interdicted and some may never become interdicted, but the guidance and TTP by which the staff recommends and plans actions should be exercised always.

Route security will include tasks, such as convoy escort, route reconnaissance, route security, checkpoint and roadblock, and any other tasks that protect the route from the enemy. Route clearance occurs when route security fails or is unavailable and includes some elements of route security with the addition of some type of engineer support to clear or improve a route. It is important not to become fixated on engineer breaching tasks within route clearance. Route clearance can be as simple as clearing downed trees and filling holes, and improving surfaces. Without follow-up route security, route clearance is effective only as long as the clearance force is on the route. Much like an obstacle that is not overwatched the unsecured route becomes dangerous quickly.

Route control is the key to both route security and route clearance. Various elements of route security facilitate route control, such as roadblock and checkpoint or route regulation. More importantly, someone must be in command of the road networks within the brigade AO, ensuring that troops and equipment move along the road network in a controlled manner. That same controlling element must integrate subordinate, adjacent, and higher units to prevent convoys or unit elements from entering routes that are unsecured or being cleared. Currently, the brigade S4 working with the support operations officer in the forward support battalion, have responsibility for the brigade road network and movement along that network. This provides the basis for understanding route operations that include route security, clearance, and control.

Joint Readiness Training Center and Battle Command
Training Program Trends

It was very interesting to note that in the JRTC trend reports, route clearance appears almost exclusively under the M/C/S BOS, and whenever mentioned is almost always designated a weakness. The JRTC trends only addressed route clearance. Route control and security were not addressed at all, which indicates a lack of integration across the battlefield framework. There is only one application of the term route clearance under maneuver. This is the heart of the problem. The trend reports themselves show that the maneuver commander and staff are not encouraged to regard route clearance, control, and security as a maneuver task, which partially explains the difficulty leaders have in planning and synchronizing route clearance, control, and security on any given route.

Only twice over a six-year period did route clearance alone receive a positive trend report. However, in one of those trend reports, while the maneuver BOS trend indicated positive execution of route clearance, the engineer BOS indicated a negative trend under MCS.[2] This is another indication of a doctrinal disconnect between maneuver BOS and MCS BOS. The second instance of a positive report contradicts itself as well. In almost every case it is not explained why units fail to properly execute route clearance. Problems and solutions were well documented, but not the details of the problem

The BCTP uses simulations and leader training programs centered on command post exercises (CPXs) to assess commander and staff ability to plan and execute missions. The BCTP provides a yearly summary of areas of improvement and

32

sustainment from corps to brigade level. After reviewing the 1999 and 2000 perceptions it is clear that planning and execution of route control is not planned and executed. Across the years, the general trend for rear command posts is that they do not plan well or synchronize the rear operations functions of security, terrain management, CSS and movements. The CSS requirements are not integrated with the maneuver plans, subordinate units, or higher headquarters units. The computer programs used to generate the data for the command post exercises have limitations and provide little detailed resolution on the specifics of execution. The BCTP focuses on planning and execution within the command posts at brigade level and above, and not small unit execution of a specific mission.

Units have consistently performed poorly in dealing with the brigade road network. The depth of the problem reaches across the named MSRs and alternate supply routes (ASRs) to all routes that may be used by brigade vehicles. The problem begins with poor IPB (intelligence preparation of the battlefield). Staffs fail to recognize the importance of and vulnerability of routes. There is a lack of ability to identify critical points and enemy intent. If a solid IPB is completed, it is not passed to all units or there is a lack of synchronization to confirm any situational template issued. Soldiers, units, and staffs fail to recognize intelligence indicators or report them. Once an ambush or minefield is detected along a route, units react slowly or not at all until losses become excessive. The units using the route and units who control the sector that a route passes through often do not plan for or integrate the response force elements for security. The response forces are often not combined arms organizations with minimal combat power that result in time consuming efforts and increased losses. It appears that commanders

33

attempt to conduct route clearance with as small a force as possible to prevent combat power being drained from the current main effort.

There are no planned or limited planned efforts to deal with the brigade road network. Tracking and control systems for routes are often non-existent. Methods of controlling convoys and access to routes are non-existent. Methods of tracking incidents and route status are not implemented. MSRs and ASRs are not coordinated with the maneuver plan. As a result personnel and equipment move freely across the brigade sector without situational awareness.

Insufficient effort is expended once routes are initially opened resulting in severe degradation of CSS assets and a general slow down of brigade operations. Minefields, snipers, ambushes, and observation posts are reinforced, often with impunity. The CSS structure that is given responsibility for rear area security is inadequate to complete the task. Fires support planning and local security are often given the briefest of attention and not sustained or adjusted as operations progress.

There are many comments concerning the problems of engineer or rear CP staff officers providing information to or receiving it from the intelligence staff officers and operations staff officers in main CPs. This is another serious problem. Once again, the responsibility for a mission that encompasses the entire AO has been laid at the feet of a combat support branch and not the branch responsible for the overall planning, the infantry and armor officers within the main CPs. It is the responsibility of the brigade/battalion S3 shop, not the brigade/battalion engineer or S4, to plan and execute route clearance, control, and security. This is made clear on brigade and battalion manuals that repeatedly state the S3 and commander are responsible for approving routes

and operations along routes. No other staff officer has the authority to tasks combat forces to operate along routes.

Field Manuals and Tactics, Techniques, and Procedures

Clearly, according to the above listed trends the Army is doing a poor job of executing route clearance, control, and security. The FM and associated TTP from the core of the material in trying to answering why units continue to perform poorly at JRTC and BCTP when it comes to route security, control, and clearance. Each manual will be analyzed according to the data it includes with respect to BOS, and whether or not that information is sufficient to train the officer and NCOs responsible within a brigade combat team. In some cases the manual may not receive a full BOS review, or it will be consolidated, as it may deal with a very specific piece of doctrine or BOS that is part of a larger doctrinal or BOS issue.

Overall Assessment of Field Manuals

In general, the primary manuals for brigade and battalion operations are not clear in their guidance or common in scope of guidance, nor do they integrate BOS elements. Associated mission training plans (MTPs) do not contain tasks that evaluate integration of route clearance, security, and control. The manuals provide almost no linkage between battalion and brigade operations along MSRs. Many manuals are often vague and sometimes contradictory. Specific BOS information is generally contained within one manual with no attempt to link that information to any other manual. The very well written FM 3-34.2, *Combined Arms Breaching Operations*, is an excellent example. Annex E contains a very detailed route clearance-planning guide, yet this information is in no way integrated into any of the infantry or armor battalion manuals, in particular

35

those manuals that are primary references for infantry and armor planners at battalion and brigade level. However, with enough study a battalion or brigade staff officer could glean sufficient information to plan route clearance and security. That staff officer would be hard pressed to locate doctrine on controlling the brigade road network or the MSRs and associated clearance and security missions.

FM 71-3, *The Armored and Mechanized Infantry Brigade*

This manual provides keystone doctrine for six of the active US Army's divisions and most National Guard brigades. It is the primary doctrinal resource for all armored and mechanized brigade operations. This manual addresses most major missions, as well as responsibility of staffs and commanders. Overall, there is no coherent discussion of route control, route clearance, or route security within FM 71-3, and it requires a great effort to track down references to those tasks that support road networks throughout the manual. As such it lacks clarity. Basic operational responsibilities are discussed with brief comments and discussion that an officer with little experience could use to create and execute a brigade-level plan for routes. Chapter 8, "Combat Service Support," lacks detail and provides no TTP or doctrinal guidelines for planning route security, control, or clearance.

Intelligence

There is no detailed discussion of how intelligence will support route clearance, security, and control. How information is collected and disseminated to convoys or units operating along routes is unclear. How those units pass information back to the brigade S2 and S3 is also unclear. The threat is considered briefly in the MSR planning section

and addresses ground, air, refugee, and choke points.[3] There is no discussion of intelligence preparation of the route.

Maneuver

Rear operations are clearly defined as "generally concerned with maintaining lines of communications (LOC) and support during an engagement. This includes securing the main supply routes against level I and II threats."[4] Oddly enough, even though the brigade S3 plans and executes combat operations, the forward support battalion (FSB) commander is given the responsibility for rear area security and clearance of the MSR.[5] This partly explains the lack of coordination between the two command posts noted in the trends. Both command posts have reason to believe the other is taking care of the problem. Specific missions along MSRs are not discussed in any depth. Route clearance is mentioned just once within the section on tasks for light infantry attached to a heavy brigade.[6] A follow and support mission for a committed reserve force is discussed briefly. This follow and support mission can include security of MSRs.[7] There is little discussion on how any type of maneuver would be carried out or the purpose of that mission. Route security, clearance, and control are not addressed at all.

Fire Support

There is little information within FM 71-3 on how fire support is employed in rear operations in general let alone along routes. A brief bullet on "supporting rear operations" is mentioned.[8] How fire support will be planned, synchronized, and employed by the rear command post is not discussed. The rear CP does not have assets to control fires, does not normally work with fire support, and has limited communications within rear area units to quickly clear fires.

37

Air Defense Artillery

Air defense artillery (ADA) employment along routes is not addressed in any detail. In chapter 3 it states, "To identify potential choke points and plan their protection." One would have to infer employment of air defense assets along routes as a planning consideration from this comment. A brief discussion is made of general ADA support of CSS assets.

Mobility, Countermobility, Survivability

Engineer capabilities and employment are not addressed in relation to route security, clearance, and control. This is surprising, considering the rear area commander is specifically given the responsibility of route clearance. There is no discussion of synchronization, coordination, task organization, or any employment of engineer assets. There is no indication that engineers are an integral part of route clearance. This compounds the problem that route clearance is not addressed within FM 71-3.

Combat Service Support

There is limited discussion of how logistics can support route clearance, control, or security operations. Chapter 8 of FM 71-3 does discuss overall rear area operations, but the specifics of maintaining open routes is not addressed. Casualty evacuation, convoy control, vehicle recovery, and logistics responsibility are not discussed within the manual.

Command and Control

The rear command post is clearly given responsibility for rear operations.[9] This includes rear area security planning, security and clearance of the road networks, and terrain management of the BSA and associated CSS elements. However, the brigade

executive officer is also given responsibility for rear operations with the following statement: "The XO is responsible for the conduct of rear operations because of his duties of coordinating the staffs of the main and rear CPs."[10] The planning and control of the MSR is a bit more convoluted. The FSB S3 and the brigade S4 coordinate to select MSRs, which are then approved by the brigade S3. This is all done with the understanding that the planners within the rear CP are only planning for level I and II threats within the capabilities of units within the rear area.

Planning considerations for the selection of MSRs are detailed within FM 71-3. The list of planning considerations does provide sufficient information to create a plan Specifically, the list specifies who has responsibility for the route, where responsibility begins and ends, critical locations, threats, and route capabilities.[11] However, there is no real discussion or guidance on how the various CPs within the brigade coordinate route security, control, or clearance. There is no discussion of how maneuver battalions should be integrated into the brigade rear operations plan.

ARTEP 71-3- MTP: *Mission Training Plan for the*
Armor and Mechanized Brigade

This manual provides training and evaluations for mechanized and armor brigade staffs which are critical to ensuring integration of route security, clearance, and control. A review of the training and evaluation outlines show only one task related to MSRs. This one brigade level task is solely a military police (MP) task. There is no integration of CSS or other BOS, although the manual indicates the military police platoon leader should integrate BOS.[12] There is normally one military police platoon in any given maneuver brigade. A typical MP platoon has seven to ten vehicles with three personnel

39

per vehicle. This platoon is simply unable to provide security for one convoy let alone many convoys plus the additional tasks it must perform.[13]

FM 71-2, *The Tank and Mechanized Task Force*

In general FM 71-2 addresses all major combat operations of an armor or mechanized battalion. It states that a battalion has no rear operation fight within an assigned sector, unless it is assigned a rear operations mission by higher headquarters.[14] This means that FM 71-3 should address rear operations in detail, and FM 71-2 should address how the battalion is integrated into the brigade rear area operation, as the battalion field trains are most often located in the brigade rear. This is not the case. FM 71-2 is analyzed from the point of view of integration and supporting tasks to a brigade rear operation, as well as what a battalion staff officer should plan if the battalion is deployed alone on a SSC or some other type of noncontiguous battlefield. In Chapter 7, Combat Service Support it discusses CSS missions in which rear operation integration and tasks should be included. However, the shortfall in chapter 7 is that it does not go into much depth about rear operations or route security, clearance, control, and the integration of these functions into the brigade rear operations mission. In no other chapters are these issues addressed. Appendix C, Road March Planning, covers road marches and basic methods of conducting road marches.

Intelligence

There is only general discussion of intelligence collection or preparation in regards to route clearance, control, or security. Intelligence is focused almost entirely on a Cold War linear style battlefield with Cold War enemy situation templates. Appendix C makes minor mention of collecting intelligence to assist in execution of road marches.

There is no clear definition of the level of threat against the MSR. Most likely because battalions are not considered to have a rear area. The FM 71-2 states this clearly when it states, "The battalion has no rear battle and responds to rear threats as a part of the close fight."[15] This is a considerable oversight. There also seems to be some confusion over the meaning and use of rear area, rear battle, and rear operations and just who is responsible for each.

Maneuver

The only significant issues discussed in any detail are road marches within appendix C and conduct of logistics packages (LOGPACs) within chapter 7. While appendix C provides a detailed guide on the conduct of a convoy, it does not describe the manner in how the convoys should be controlled within the framework of the overall brigade rear operations. There is no discussion of how convoy X departs the battalion field train, or how it passes along brigade controlled MSRs to the battalion rear boundary, where the battalion assumes responsibility until the LOGPAC returns to the brigade controlled area. The LOGPAC portion details why and how LOGPACs should be conducted, but provides no guidelines at all for security. The assumption is made that the LOGPACS are close enough to combat forces that enemy forces will not attempt to interdict battalion portions of MSRs or that the combat forces can respond quickly enough to prevent interdiction. As with most manuals written before 1995, the concepts of linear Cold War battles are deeply ingrained.

Fire Support

As previously stated, the battalion has no rear area, there is no discussion of fire support and its use along routes. This is a considerable problem that applies not only to route security, control, and clearance, but to concept of tactical combat forces (TCFs) as well. Fire support integration is difficult to implement between trained artillery personnel and combat arms personnel under the best of conditions. The fact that units and personnel who have never trained together have little doctrinal basis for the contributes to the lack of fire support coordination in support of routes and the potential for fratricide.

Air Defense Artillery

Much like fire support there is no discussion of how to employ ADA assets along an MSR. ADA is addressed in generalities of providing coverage of critical areas and assets within a battalion AO. There should be some mention of use along the MSR if for no other reason than to provide a planning guideline.

Mobility, Countermobility, and Survivability

As with FM 71-3 there is no discussion of route clearance at all within FM 71-2. This is very surprising considering a maneuver battalion would provide forces to conduct this mission. There is much discussion on the topic of hasty and deliberate breaching, but these tasks and missions do not address any planning considerations along an MSR.

Combat Service Support

Chapter 7 provides a detailed account of how logistical support is carried out within a maneuver battalion. It provides some guidance on how LOGPACs are conducted. However, there is no discussion of how logistics should be tailored for a

mission along an MSR. There is some discussion on logistic support of a road march and some planning considerations.

Command and Control

The FM 71-2 provides clear guidance to the Combat Trains Command Post (CTCP) and the Field Trains Command Post (FTCP) on what they are required to do in planning and executing LOGPAC operations and coordinating logistics support. There is discussion on coordinating collection and movement of CSS elements between the BSA and the battalions. However, the "how" is missing. There is no guidance or framework for the HHC commander or the battalion S4 on ensuring integration between each other or other elements along the brigade MSR. The battalion S4 is often a first lieutenant or junior captain awaiting command. The doctrine is insufficient for an inexperienced leader to develop a plan.

The battalion executive officer is clearly given responsibility for ensuring that CS and CSS elements are integrated into any plan. The battalion S4 is clearly given the responsibility of moving the combat trains, but not dealing with routes. Much like at brigade level the battalion S3 is responsible for approving a recommended MSR, but there is little detail given as to how this process is done or tracked once initiated. The manual does not identify who has responsibility for overseeing the planning and coordination of MSR maintenance and movement along the routes. Successful route security, clearance and control of the routes is contingent on identifying somebody responsible for the mission.

There is no guidance on route control or security. There is limited guidance on route clearance. Similar to the mission of route clearance is doctrine related to breaching

43

and road march guidance. This information is unclear and spread throughout the manual. A battalion task force can't rely on this manual alone to conduct route security, clearance and control.

<center>FM17-95, *Cavalry Operations*</center>

Cavalry organizations do not normally appear within maneuver brigades. Cavalry units are combined arms units in every sense of the term in that they contain permanently task-organized elements from every BOS, including aviation assets. Cavalry units are designed to be independent, self-supporting, and flexible units. Occasionally they will support maneuver brigades, but are not part of a normal task organization. However, due to the nature of cavalry organizations elements down to section level may appear within any given brigade sector. These elements could be part of an aviation troop, part of a ground troop, or both. For the purposes of this analysis armored cavalry or light cavalry regiment operations will not be considered because they rare and fall outside normal brigade operations.

There are limited numbers of cavalry units within divisional structures, with only three types of units available: divisional cavalry squadrons, brigade reconnaissance troops, and battalion scout platoons. It is fairly easy to task organize a standard mechanized company team with additional elements to provide an organization with cavalry capabilities.

Cavalry units perform four major tasks related to routes. The BOS will be used to determine if the manual used a synchronized and integrated approach in discussing these tasks. These tasks are route reconnaissance, convoy escort, route security, and battlefield circulation. FM 17-95 provides detailed discussion on the five related tasks. The one

<center>44</center>

overall weakness is how these tasks integrate with rear CPs and the overall control of the road network, but in many cases within the MTP task these issues are addressed. Rear area operations are specifically addressed within FM 17-95 in chapter 8, Other Operations. They are discussed in terms of security, movement control, missions within the rear area, and command and control.[16] Many of the issues deal with integration between units within the rear area.

Route Security

Route security falls under the umbrella of area security and is only performed at squadron level. As such, it will be rarely executed by a squadron due to the limited number of squadrons. FM 17-95 and the associated task, Conduct Route Security (17-1-9406.17), within ARTEP *17-385-MTP* provide detailed guidance on command and control, maneuver, fire support, and intelligence. The task is weak in terms of ADA, C/M/S, and how the results of route security will be relayed to higher and adjacent units. Internal to this task are checkpoint and roadblock tasks.

Route Reconnaissance

This task is the most often recognized within divisional structures. Normally controlled at squadron and battalion level, this task appears in the cavalry platoon, troop, and armored and mechanized company team MTPs. It focuses on collecting detailed information on the route and anything that can influence the route. This task is most often performed by cavalry platoons, scout platoons, or company teams. The troop task of conducting route reconnaissance (17-2-4000.17-00DT) does integrate BOS and most importantly does address coordination with higher, lower, and adjacent headquarters. There is heavy emphasis on intelligence, command and control, fire support, maneuver,

C/M/S, and CSS integration. Aviation assets are considered as well due to the availability of OH-58D and Apache helicopters to cavalry units to assist in reconnaissance. There are detailed requirements for reporting route capabilities and status. The company team task within is not as detailed nor is the cavalry and scout platoon task of conducting route reconnaissance. The lack of resolution at platoon level is understandable, due to the level at which a platoon operates. The platoon tasks address command and control and reporting of information to higher and adjacent headquarters and units. It is important to note that a detailed route reconnaissance not followed by sustained security is a wasted effort as the reconnaissance does not provide security after completion.

Convoy Escort

This task is much like route security and involves many of the same tasks. It is usually conducted due to insufficient forces being available to secure the routes within an AO. It is interesting to note that the FM 17-95 assigns nothing less than a troop-sized element to conduct this mission. It is a complex task that is manpower and equipment intensive. As it contains many of the same elements as route security, the mission is extensive. The manual specifically discusses integration of all BOS, with heavy emphasis on integration of military police, aviation, and engineers. There is an important distinction between a true convoy escort mission as defined by FM 17-95 and convoy escort missions within military police units yet both operate in the same capacity with greatly different capabilities. Nothing in any manual really indicates at what point a military police platoon becomes acceptable when an entire troop is clearly required by the cavalry manuals. After reviewing both tasks it is clear the MP task is nothing more

than immediate local security of a convoy with limited personnel and equipment. That immediate security extends no further than the vehicle in front or behind the MP escort vehicle.

The convoy escort task is contained within the cavalry troop, platoon, and company and mechanized team MTPs. The squadron and troop MTPs are very detailed and address all BOS with heavy emphasis on command and control, reporting, and integration of military police and engineers. The FM 17-95 and associated MTPs provided sufficient and detailed guidance to execute convoy escort, but they do not provide guidance on planning and preparing the convoy itself. Internal to this task are checkpoint and roadblock tasks.

FM 7-30, *The Infantry Brigade*

Field Manuals 7-20 and 7-30 are the primary manuals used within light infantry brigades and battalions. They provide the outline for all operations within the light infantry brigade much as FM 71-2 and FM 71-3 do for the mechanized and armor brigades and battalions. These manuals are also vague and unclear about rear operations. Clearly, both manuals focus on combat operations and have poorly developed rear operations sections. There is no mention of route reconnaissance, security, or control within these manuals.

Intelligence

Intelligence of the rear area is mentioned only briefly and not in specific regards to routes. There is no guidance on integration of IPB or intelligence assets into an overall brigade route clearance, security, or control program. There is no discussion of threats or threat capabilities within the rear area in relation to routes.

47

Maneuver

There is no guidance or framework provided to plan or execute a brigade-wide MSR structure and no relationship with subordinate battalions mentioned. There is detailed discussion on selecting routes and locations for various CSS assets, but no discussion of an integrated plan. Route clearance, security, and control are not addressed as part of offensive or defensive operations.

Fire Support, Air Defense Artillery, Mobility, Countermobility, and Combat Service Support

The FM 7-20 and FM 7-30 do not discuss the integration of BOS in regards to route clearance, security, or control. This could explain why JRTC trends indicate brigade staffs have difficulty planning and executing. If the training tool does not contain guidance, structure, or examples of how to plan and execute brigade road network operations, there will be problems. This manual does not address any specifics of doctrine or TTP that would prepare a staff officer to plan and prepare for route clearance, security, or control. One bullet statement is dedicated within the entire chapter 9, Combat Service Support on road networks: "Reconnoitering and clearing MSRs through previously occupied terrain."[17] This is simply inadequate. The functions of the logistics command posts and staffs officers are defined with the primary responsibility of rear operations.

Command and Control

Responsibilities for rear area operations are well detailed and identifies a command post responsible for controlling the area of operation. In this case, the rear command post controls the rear area. Again, there is no guidance on how to execute rear

48

operations other than general CSS tasks and procedures. The brigade executive officer is responsible for integrating CSS into operations with the recommendation and support of the brigade S4 and forward support battalion. There is no guidance on how to track MSR status or movement of convoys along the routes. There is no manner prescribed for ensuring clearance, security, and control responsibilities are handed off at specific points to subordinate units. The provided an example of a tactical standing operating procedure. It was missing a route report and contained no examples of how to control the road network within a brigade AO.

ARTEP 7-30-MTP: *Mission Training Plan*

This MTP does not contain any task specific to routes. There is no task that provides any training evaluation outline on planning or executing route clearance, security, and control. Light infantry brigades are the primary units deployed to the JRTC, yet the brigades do not have a task to train or evaluate the one area that consistently brings brigades to a halt. There is one brief mention of MSR regulation and enforcement within task 07-6-1940, but no specifics.

FM 7-20, *The Infantry Battalion*

This manual is the counterpart of FM 71-2 but focuses on light infantry battalion operations. It provides some guidance for route clearance, control, and security. BOS elements of fire support and CMS briefly mention MSR considerations in relation to sub unit missions. This manual provides little to assist the staff officer to plan and execute any type of route clearance, security, or control missions and certainly does not integrate the battalion into brigade operations in any way along routes. Within this analysis the subordinate mission training plans for company and platoon are included.

ARTEP 7-20-MTP: *Mission Training Plan*

ARTEP 7-20-MTP does contain several tasks that address route clearance, control and security issues. Task 71-1-232-07-1346, Plan Convoy Escort Operations, provides detailed guidance on convoy escort missions. This task provides guidance for a company team under battalion control to plan and execute convoy escort mission. This task does not provide for integration of all BOS elements and does not fully address intelligence, fire support, ADA, M/C/S, or CSS. It does provide detailed command and control guidance, as well as maneuver guidance. Task 71-1-0410.07-1153, Conduct Area Security Operations, addresses route clearance and control as a planning issue. It does not provide guidance as to how to plan or execute such missions. It does give the commander and S3 responsibility for planning route clearance and control. This task does not discuss integration with adjacent battalions or brigade elements.

ARTEP 7-10-MTP: *Mission Training Plan*

This is the company mission training plan for infantry units. Task 07-2-1104, Conduct Route Clearance, is provided for infantry companies. This task looks very similar to a search and attack mission for a platoon. The task focuses on the infantry tasks and mentions the word engineer once in the entire task with no reference to any other BOS element. In comparison to the route clearance planning provided in FM 3-34.2, this task is wholly inadequate for training and evaluation. BOS elements are not integrated, and the company commander is given responsibility for providing information to all units that use the route.[18] This leads to problems, as the company lacks sufficient communications to report the condition of the route to all units that use the route. As light infantry companies carry radio communication on their backs they have limited

50

ability to integrate actions with the brigade rear and any units coming into the company AO.

<p align="center">ARTEP 7-8-MTP: *Mission training Plan*</p>

This manual is referenced as part of the task from ARTEP 7-10-MTP. Task 07-3-1005, Conduct Route Reconnaissance, is part of route security and provides a comprehensive list of planning details for conducting a route reconnaissance.[19] This task is comparable to similar tasks located within cavalry mission training plans. As this is a platoon task it deals with a very small piece of overall operations and as such does not integrate all BOS.

<p align="center">FM 3-34.2, *Combined Arms Obstacle Breaching*</p>

This manual primarily addresses combat breaching. It recognizes the significant differences involved with route clearance operations and dedicates all of Appendix E, Route Clearance, to this. This manual states that "clearance operations are normally conducted in low-threat environments."[20] This is misleading. Route clearance can and will occur in any type of situation at all levels. The idea that on a Cold War style linear battlefield the threat to routes is somehow going to be dealt with differently is incorrect. Considering the fact that most deployments of the US military in the last fifty years have been to SSCs should provide for a more stringent approach. This manual reflects the lessons learned from the JRTC and Bosnia as much of the doctrine contained within Appendix E can be found in articles in professional magazines, CALL articles, and trend reports over the last ten years. This is a good doctrinal manual for the specifics of route clearance and control. Its limitations are that it does not address security issues and assumes that this type of mission will only occur in a low-level threat.

<p align="center">51</p>

Intelligence

This manual does a good job in addressing the intelligence preparation of the battlefield in terms of routes. It integrates threat analysis, named area of interests (NAIs), and reconnaissance efforts to prepare for route clearance operations. There is also a list of assets or planning purposes to collect intelligence on the route. Procedures are also discussed for tracking the intelligence of the route and reported incident along the route. It also discusses integration with the engineer staff on enemy obstacle planning.

Maneuver, Mobility, Countermobility, and Survivability

Both maneuver and MCS are well integrated in appendix. A route clearance force has the capability to conduct an on-call breach operation. Methods of clearing, security during clearance, composition of clearance teams, disposition of those teams, and specific details for breaching are all addressed. This is a very good planning guide for a battalion or brigade staff officer. Road repair is also discussed in terms of an overall clearance plan. This manual does not address the overall planning of a brigade or battalion MSR control or security plan, only the clearance portion of such a potential plan. While appendix E does an excellent job of providing guidance on a specific route clearance operation, it does not address how that clearance team moves from one battalion sector to another or how a route is cleared from the brigade support area (BSA) to the forward elements of a battalion.

Fire Support

Five points on fire support planning are addressed within Appendix E. This is the weakest portion of Appendix E in that, while it does more in regards to route clearance than most manuals, it does not fully provide guidance on use or integration of

fire support. The largest oversight is what type of fire support coordination measure should be used, how to clear fires, and how the clearance team integrates fire support.

Air Defense Artillery

This section provides information about passive air defense measures but is vague on how to place ADA systems to influence the clearance operation. This section only mentions integration of ADA systems into the clearance force, but not how or why.

Combat Service Support

This is a detailed section that addresses medical evacuation to include ground and air, mechanical evacuation, support logistics, and some TTP on where to place logistics assets. Additional TTP are included for mine-clearing purposes. This manual provided a hardy discussion on the subject of logistics.

Command and Control

This section provides detailed guidance on the conduct of rehearsals, designation of a reserve to support clearance operations, specific details of the end state of the mission, route tracking, integration of the route clearance and CSS assets, and clearance priorities. This section does not discuss how the MSR gets cleared from the BSA to the front line through multiple unit areas of responsibility. It does not address specific TTP of how to track route status. There is also no mention of how to inform as to the status of the MSR. According to the JRCT trend reports, one of many problems is the lack of situational awareness. This section is more detailed than most manuals, but does not go far enough in synchronizing the battalion and brigade efforts.

<u>FM 19-4, Military Police Battlefield Circulation Control,</u>
<u>Area Security, And Enemy Prisoner of War Operations</u>

The FM 19-4 outlines procedures for MP platoons and companies that typically support a brigade. While the manual addresses a wide range of MP tasks and concerns only traffic control, convoy escort, and route security are of interest to the question. A typical MP platoon that is attached to a brigade will contain seven to ten vehicles with three personnel per vehicle. The MP platoon is equipped with wheeled vehicles .50-caliber machine guns and MK-19 grenade launchers. It has limited communications equipment. This manual will provide tasks and TTPs to brigade and battalion planners in using the MP platoon.

There are some significant problems with the doctrine laid out in this manual that stem from two misconceptions. The first is that the single military police platoon has the equipment and personnel to deal with the missions assigned, and the second is the doctrine that addresses the rear area threat is very optimistic in assuming that a military police platoon can do its mission.

A prime example of a disconnect appears between the military police task of convoy escort and the cavalry task of convoy escort. The military police assigns the mission to a platoon; the cavalry assigns the mission to nothing less than a troop. The differences between an MP platoon and a cavalry troop are obvious. Doctrine is unclear as to why there are two different convoy escort missions with greatly different standards. Only an assumption can be made that the troop must be used in situations where the threat is a level III threat. Doctrine is also not very clear as to what the threshold is between level I, II, and III threats. It is up to leader discretion. The argument has already

54

been made that the military police platoon within a maneuver brigade simply cannot execute a mission of convoy escort against anything other than the weakest threat.[21]

The FM 19-4 discusses military police units providing "security" via traffic control points (TCPs) along routes at critical locations. With three man crews and no armor protection, especially for the gunner, these TCPs are extremely vulnerable to a lone sniper let alone an enemy squad. TCPs certainly have value, but not to provide security. They offer more in the way of route control or support to a combined arms effort along a route. There is no example of guidance or integration with a maneuver brigade.

FM 55-10, *Movement Control*

FM 55-10 addresses the fundamentals of movement control from strategic level down to brigade and battalion. Chapter 5, Tactical Movement Control, and chapter 7, Theater Transportation Distribution, address the level of detail about which this thesis is concerned. Chapter 5 outlines responsibilities and functions. The responsibility for route control is much clearer in FM 55-10 than in any maneuver brigade manuals. Brigade and battalion S4 functions and responsibilities from chapter 5 are as follows:

> Brigade HQ has no separate transportation staff. The brigade S4 normally performs transportation functions with assistance from the FSB. The brigade S4 does the following:
>
> Responsible for highway regulation in the brigade rear area.
>
> Establishes MSRs in the brigade area in coordination with the DTO and DISCOM DMC.
>
> Coordinates with the DTO for highway regulation and movements that cross the brigade rear boundary.

Coordinates with the FSB support operations to obtain transportation support when requirements exceed the capability of the brigade.

Division maneuver and combat support battalions and squadrons do not have separate transportation staffs. The battalion S4 normally performs transportation functions with help from the support platoon leader. Their TOEs provide vehicles to support limited movement requirements such as resupplying their companies from the BSA. The battalion S4 requests transportation support and movement clearances through their brigade S4.[22]

Chapter 7 provides a good source of doctrine and TTP for methods of controlling a route from a headquarters in light of the chapter 5 roles and functions listed previously.[23] Planning considerations for choosing and establishing control measures, route scheduling, executing convoys, and convoy tracking are provided. This is the level of detail with which a battalion or brigade S4 should be familiar to plan and execute missions along a brigade road network. This is the critical piece missing from current maneuver brigade manuals and the information required for the S4 to plan security, clearance and route control for the brigade.

Related Manuals

This section deals with those manuals that should provide overarching concepts that support all subordinate unit doctrine. These are FM 71-100, FM100-5, and the draft FM3.0 and ST 3.0. These manuals define battlefield framework and overall doctrinal concepts. Although these manuals only superficially address the questions at hand, they do, nevertheless, provide some guidance related to route control, clearance, and security.

FM 100-5 *Army Operations* and ST 3-0 *Army Operations*

The draft FM 3-0, *Army Operations,* will be approved at some point after this thesis is completed. The current draft was released as ST (Student Text) 3-0 in October of 2000 at Fort Leavenworth. A comparison of the current (1993) FM 100-5 and ST 3-0

is valuable to determine what overarching concepts the Army has in place or plans to have in place. By and large, concepts of battlefield framework, principles of war, and tenets of army operations generally remain the same. The ST 3-0 does greatly expand upon SSCs and so-called "full-spectrum" operations, and clearly stresses the importance of joint operations. The battlefield organization framework includes decisive, shaping and sustaining operations. Rear operations is replaced with the term "sustaining operations. The term "rear area" will remain a viable term because the Army recognizes that it will continue to conduct linear operations and must describe the battlefield in spatial terms. The new battlefield organization makes it even more difficult to plan and manage security, clearance and route control because our operations will be both linear and non-linear. This is very relevant to MSRs as the linear battlefield concept so familiar during the Cold War is no longer the sole battlefield concept.

The ST 3-0 expands and better defines the battlefield framework with four possible situations or a combination of those situations: linear operations in a contiguous AO (Cold War), linear operations in a noncontiguous AO, nonlinear operations in a contiguous AO, and nonlinear operations in a noncontiguous AO.[24] What this means is that the maneuver brigade or battalion commander may find his MSR going many different places through many different sectors.

The ST 3-0 states that: "Movement control includes movement planning, routing, scheduling, and controlling personnel and material movements into, within, and out of an AO. Maintaining movement control, keeping LOCs open, managing reception and transshipment points, and obtaining host nation support are critical to movement control."[25] A rear area is defined as: "When designated, the rear area for any command

57

extends from its rear boundary forward to the next lower level of command . . . . In some cases, commanders may designate a noncontiguous rear area due to geography or other circumstances. In this case, the rear area force protection challenge increases due to physical separation of forces in the rear area from combat units that would otherwise occupy a contiguous close area."[26] These definitions are important as they show what a brigade or battalion planner needs to consider for the battle of tomorrow. It is easy to plan for a linear battlefield when the enemy lines up nicely in front of the friendly force and the AO is well defined. That is no longer the case and never was in reality. The doctrine related to linear battlefield existed within Cold War doctrine, and this subsequently became a significant part of the combat training centers which is now changing.

FM 71-100, *Division Operations*

FM 71-100 defines the rear area threat and the forces that should respond to that threat. There are three threat levels defined in FM 71-100: "Level I threat can be defeated by base or base cluster self defense measures within unit capabilities. Level II threat is beyond base or base cluster self-defense capabilities and can be defeated by response forces, normally consisting of MPs with supporting fires. Level III threats require the command decision to commit the tactical combat force (TCF) or reserve force."[27] There is a failing in this doctrine as it relates to route security, control, and clearance. Tactical combat forces and reserves, whether they consist of ground forces or aviation assets, by their nature respond to enemy contact. This is simply too late for many of the CSS assets using routes. The level I, II, or III threat will make contact with inadequately secured CSS convoys and be gone long before the decision is made that the

58

unit needs help, and before any TCF or reserve ever arrives to find the smoking remains

of the convoy. The assumption is that CSS units with support from MPs can handle level

I and II threats by themselves, but they are neither equipped or trained to do so, even in

the best of circumstances.[28] This is a critical distinction, as it now places the

responsibility of security, clearance, and control squarely back on the maneuver brigade

and battalion staffs to provide a solution to a task that they are unresourced to do, that has

no clear overarching doctrine and no training plan to support.

FM 3-100.40 (DRAG) *Tactics*

This manual is in draft form and not approved. However, it provides a clear view

of the seriousness of route operations and a definition of route security operations. The

FM 3-100.40 defines route security operations as "a specialized kind of area security

operations conducted to protect lines of communication and friendly forces moving along

them."[29] This manual makes a clear case for route security operations by stating,

"Enemy attempts to interdict lines of communication may have little immediate impact

on ongoing decisive and shaping operations because of unit basic loads and previously

positioned caches. However, the security . . . is critical to sustained land operations . . . .

The security of route and lines of communications (LOCs), whether rail, pipeline,

highway, or waterway, presents one of the greatest security problems in an echelon's rear

area."[30] This manual further provides the framework and general guidance on how a

commander can secure his routes with passive security, route reconnaissance, cordon

security, combat security, convoy escort, and convoy planning. This draft manual

provides better guidance on convoy planning and execution than many brigade and

battalion manuals reviewed in terms of actual details. It also provides overall concepts of why various actions are necessary and important.[31]

Modified Table of Organization and Equipment

A review of CSS MTOEs has already determined that there is a problem with doctrine being disconnected with the reality of personnel and equipment on the ground.[32] A review of the maneuver battalion and brigade MTOE indicates factors bearing on the issue of training. First, the battalion S4 logistics officer is usually an infantry or armor captain. That person is usually fresh from CAS3 and waiting for command of a company -- in short, inexperienced. The brigade S4 slot is a major's slot, often filled by a major waiting for a branch qualifying job or filled by a senior captain due to shortages. In general officers have limited experience and, as shown, have little doctrinal guidance on how to conduct route operations within keystone maneuver manuals.

Training

Neither Combined Arms Staff Service School (CAS3) nor the Command and General Staff Officers College(CGSOC) provides training on route security, clearance, or control although training is provided on the larger rear area portion of the battlefield framework. Process is paramount over procedure at both of these schools. Due to limited doctrine and TTP in infantry and armor manuals, officers assigned to staff slots in battalions and brigades have widely varied background and experiences.

Summary

It is obvious after analyzing the doctrine and TTP available that there are significant gaps regarding route security, control, and clearance. This is especially true at the brigade level. There is little doctrinal guidance, TTP, or tasks in any maneuver

brigade manuals for controlling the road network within a brigade AO. There is little in maneuver battalion-level manuals. FM 7-20, FM 7-10, FM 3-34.2, FM 17-97, FM55-10, and TC 7-98-1 all contain pieces of the solution to the overall problem of controlling, clearing, and securing road networks within the brigade AO. However, none of this is tied together in a single source manual for the brigade or battalion staff to coherently use to plan and execute a mission. Additionally, if the primary manuals for maneuver brigades do not contain sufficient information, which they do not, and those supporting manuals that do have useful doctrine are not included in the curriculum, which they have not been, then training at schools for junior officers in these important areas will continue to be nonexistent.

Unrealistic Doctrine

Convoy operations and convoy escort missions are part of route security, and this is where doctrine does not reflect reality on the ground. CSS units are simply unable to escort themselves within a brigade AO. For reasons outlined previously, they lack the firepower, training, personnel, and equipment to adequately protect themselves, as called for in doctrine. The doctrinal answer is that the military police will provide convoy escorts. Yet the military police platoon normally attached to a maneuver brigade has anywhere from seven to ten vehicles with three personnel each to support a sustained escort mission across the brigade road network. The military police platoon simply does not have the personnel or equipment to perform the mission, even if all it did was dedicated escort missions. This does not take into account the other missions it may be called on to perform by the brigade. Cavalry squadrons and troops have route security missions and actually do these mission routinely. However, within a brigade sector it is

61

extraordinary to see a cavalry platoon, let alone a troop or squadron. Only one light and one heavy armored cavalry regiment, the 2nd Light Cavalry Regiment and the 3rd Armored Cavalry Regiment, remain in the active force. Each division has a squadron with ground troops. Those forces are rarely, if ever, attached to a maneuver brigade and rarely used to conduct route security. Again, the brigade and battalion staffs must plan and execute a mission for which they are not trained.

Training

The various mission training plans for maneuver brigades and battalions do not contain a task to train or evaluate route control, clearance, or security. As a result, these missions, however large or small, rarely, if ever, are addressed during a field exercise. While this cannot be proven due to the inability to review unit status reports, it is strongly suspected that the various route clearance, control, and security tasks are not on very many mission essential task lists. In the absence of military police and cavalry forces, along with the inability of CSS units to adequately protect themselves, brigade units must do the task themselves, although they do not train for the task or mission. If the brigade or battalion staff desired to train this task they would be hard pressed without significant work to develop a coherent SOP or training evaluation and outline to support the task.

However, all is not bleak. Some units do develop SOPs and are successful at JRTC and elsewhere. Within the various manuals there is enough guidance and TTP to develop general guidelines that will support everything from combat missions to stability operations and support operations. Chapter 5 will provide recommendations and examples of a method to provide a one-source document to assist battalion and brigade staff officers to deal with the brigade road network.

[1] Center for Army Lessons Learned (CALL), *Combined Arms Route Clearance Operations Video*, (Fort Leavenworth, Center for Army Lessons Learned, June 1995).

[2] Center for Army Lessons Learned (CALL), *JRTC Trends, 2nd and 3rd QRTS, FY 97* (Fort Leavenworth: CALL Collection.)

[3] US Department of the Army, FM 71-3, *The Armored and Mechanized Infantry Brigade* (Washington DC: Government Printing Office, January 1996), 8-8.

[4] Ibid., 2-5.

[5] Ibid., 2-9.

[6] Ibid., C-5.

[7] Ibid., 4-4.

[8] Ibid., 4-6.

[9] Ibid., 2-9.

[10] Ibid., 3-5.

[11] Ibid., 8-6 and 8-8.

[12] US Department of the Army, ARTEP 71-3-MTP, *Mission Training Plan for the Heavy Brigade Command Group and Staff* (Washington, DC: Government Printing Office, February 1997), 5-31.

[13] Ernest A. Szabo, "Does the Army Have Effective Doctrine for the Conduct of Rear Area Security and the Protection of Support Troops" (School of Advanced Military Studies Monograph, Fort Leavenworth, KS, December 1996), 22-23.

[14] US Department of the Army, FM 71-2, *The Tank and Mechanized Infantry Battalion Task Force* (Washington, DC: Government Printing Office, August 1994), 4-7.

[15] Ibid., 1-7.

[16] US Department of the Army, FM 17-95, *Cavalry Operations* (Washington, DC: Government Printing Office, December 1996), 8-13 to 8-25.

[17] US Department of the Army, FM 7-30, *The Infantry Brigade* (Washington, DC: Government Printing Office, October 2000), 9-5.

[18] US Department of the Army, ARTEP 7-10-MTP, *Mission Training Plan for the Infantry Company* (Washington, DC: Government printing Office, March 2000), 5-53.

[19] US Department of the Army, ARTEP 7-8-MTP, *Mission training Plan for the Infantry Platoon* (Washington, DC: Government Printing Office, March 2000), 5-53.

[20] US Department of the Army, FM 3-34.2, *Combined Arms Breaching* (Washington, DC: Government Printing Office, August 2000), E-1.

[21] Szabo, *Does the Army Have Effective Doctrine for the Conduct of Rear Area Security and the Protection of Support Troops,* 22-24.

[22] US Department of the Army, FM 55-10, *Movement Control* (Washington, DC: Government Printing Office, February 1999), 7-15 to 7-22.

[23] Ibid., 7-15 to 7-22.

[24] US Department of the Army, ST 3-0, *Army Operations* (Fort Leavenworth, KS, US Army Command and General Staff College, October 2000), 6-16 to 6-17.

[25] Ibid., 4-24.

[26] Ibid., 4-26.

[27] US Department of the Army, FM 71-100, *Division Operations* (Washington DC: Government Printing Office, August 1996), 5-11.

[28] Szabo, *Does the Army Have Effective Doctrine for the Conduct of Rear Area Security and the Protection of Support Troops,* 14-28.

[29] US Department of the Army, FM 3-100.40(DRAG), *Tactics* (Fort Leavenworth, KS: US Army Command and General Staff College, December 2000), Glossary 25.

[30] Ibid., E33.

[31] Ibid., E-33 to E-42.

[32] Szabo, *Does the Army Have Effective Doctrine for the Conduct of Rear Area Security and the Protection of Support Troops,* 14-28.

CHAPTER 5

CONCLUSION AND RECOMMENDATIONS

Overview

The US Army does have limited deficiencies in doctrine and TTP in some areas

of route security, clearance, and control, but not very many. This, quite frankly, was

unexpected. The US Army is not completely devoid of doctrine and TTP, but does not

tie the various components together in a coherent fashion. This chapter will identify the

deficiencies and provide recommendations to assist in mitigating the shortfalls noted.

To recapitulate, As a review from chapter 1, here are the three main questions of

this thesis are: Are combat units within a typical US Army brigade combat team's area of

operation (AO) prepared and trained to successfully secure, clear, and control road

networks? What is the current state of doctrine concerning route operations? What is the

current state of tactic, techniques, and procedures (TTP) concerning route operations?

Brigade Combat Units Ability to Successfully Conduct Route Operations

Are combat units within a typical US Army brigade combat team's area of

operation (AO) prepared and trained to successfully secure, clear, and control road

networks? In short, no, but they should be. There does not appear to be a significant

single reason based on doctrine or TTP weaknesses that would cause the consistent

failures noted by the JRTC and BCTP. Training appears to be a bigger problem.

A series of smaller issues could cause the failures, but detailed staff preparations

could just as quickly negate those issues. While most units do not recognize route

operations as containing the three critical components of route control, security, and

clearance, almost all of the required elements do exist within existing doctrine. Much of

this information is not contained within primary combat brigade manuals and is not always in the easiest to read formats, but it does exist.

In many cases, the doctrine is common sense and in all reasonable situations would be determined by units as needed during the course of operations. Therein lies the problem that was not addressed in the scope of this thesis. Current training exercises are usually short duration and not focused on the long-term effects of route operations. Only at the CTCs is any given unit in the field long enough to truly operate at brigade level and experience the problems of an integrated road network.

Status of Existing Doctrine and Tactics, Techniques, and Procedures Concerning Route Operations

What is the current state of doctrine and tactic, techniques, and procedures (TTP) concerning route operations? A scarcity of doctrine for route control issues is found at the battalion and brigade level. Specifically, doctrine and TTP to ensure successful command and control, synchronization, and integration of units and BOS within the brigade AO, and those that interact with the brigade AO, are lacking. It is difficult to envision how a battalion or brigade staff will integrate the various tasks that support missions operating along the brigade road network between battalion and brigade. The problem is compounded when moving beyond operations within a division structure in a conventional MTW and an individual brigade operating alone in an SSC. None of the primary infantry or mechanized battalion and brigade field manuals provide anything more than a cursory look at road network operations.

The problems within current manuals is not only an issue of a lack of doctrine or TTP, but also the dispersed nature of what does exist. There is a sentence here, a paragraph there, an appendix in one manual, and additional doctrine in another. This

doctrinal dearth for security, clearance and route control issues cause a significant lack of comprehensive and accessible information for officers responsible for managing road network operations. Without significant preliminary research, a junior officer will not find what he needs to generate a SOP. In addition, draft manuals, such as FM 3-100.40, *Tactics*, that are the best resources for this information are currently not available to the field. What this means is that any attempts to solve doctrinal deficiencies are within doctrine not yet approved.

Strengths of Existing Doctrine, Tactics, Techniques, and Procedures

There is some fairly complete doctrine of some specific missions related to route operations. Route clearance as framed by FM 3-34.2, *Combined Arms Obstacle Clearance*, is very detailed and should suffice to conduct any clearance mission. Route security as defined by FM 17-95 and associated MTPs provide sufficient detail. FM 55-10, *Movement Control* provides in-depth guidance on doctrine and TTP to manage convoy movement along routes. However, doctrine and TTP that integrate all of these are lacking. This chapter will provide a recommended link of those detailed resources into one compendium of route material.

Training

With the exception of the Joint Readiness Training Center, which provides significant opportunity to train on tasks that support the road network, the remaining CTCs only occasionally focus on routes. There is little within field manuals or in training evaluation and outlines to generate a standard block of instruction for any Army level school for officers. As a result, brigade and battalion staff officers must learn on the job with no standard guidance for executing missions along routes. This is dangerous

because road networks interact with so many others inside of and outside of the brigade. The lack of training and automation to manage the road networks results in causalities and late or undelivered support, as noted by JRTC and BCTP.

The reality of directed METLs, training time, conflicting unit priorities, money, and resources all combine to force commanders into making decisions on what will be trained. With the finite amount of training time and resources a commander will rightfully decide to train those items on his METL and accept risk on those tasks that fall outside the METL. If doctrinal resources were in place with sufficient detail to quickly create training scenarios and the basis for planning commanders would be more apt to train in those often-neglected areas of route operations and support.

It is rare to see a brigade conduct brigade combat team situational training or field exercise training as an entire brigade entity. This prevents the staff from learning by doing until the unit deploys to a CTC or overseas. Battalions do not often receive the opportunity to train within battalion STX or FTXs. Each unit must then rely upon an SOP to perform the mission. The SOP is a doctrinally based document to assist the unit to overcome limitations and to focus assets and capabilities to meet mission requirements. The lack of doctrine and TTP for command and control of the road network often results in an ambiguous, vague SOP governing how to manage and conduct road network operations.

CAS3 and CGSOC concentrate efforts on doctrine and process. Training and reinforcement of the Military Decision-Making Process are stressed continuously. TTP are only discussed as side issues and not uniformly from class to class. The other issue is that not all officers attend resident CGSOC to benefit from the group interaction that will

bring forth some of these issues. Again, a doctrinal dearth exists for route control doctrine within the basic infantry and mechanized manuals, the issues of route clearance, control, and security only get addressed occasionally and non-uniformly. There are some significant problems with both of these schools well beyond the scope of this thesis.

Recommendations

Clearly, the solution is to provide staff officers a consolidated set of guidelines to reference that is easily accessible within the primary manuals for infantry and armor brigades and battalions. A simple expansion of existing chapters that deal with logistics and rear operations to include planning and executing route operations would suffice. There are some very good doctrinal tools in existence that could be included.

For purposes of this recommendation the assumption is that the brigade is securing and controlling its own road network and MSRs. Route control and route security are the two main areas that need to be addressed with recommended solutions as done improperly they will lead to route clearance missions as a reaction to a problem instead of a routine battle drill.

Each unit will conduct operations dependent on METT-TC, that is well understood. When a common road network is used between separate units the conduct of movement along that route must be in accordance with some type of SOP to prevent fratricide, deter road congestion and halt to units that have priority of movements. METT-TC and commander's guidance will dictate how much of a brigade's combat power will be dedicated to route operations. It may be all of a brigade combat team and more if the situation is that severe. This is thesis cannot prove that commanders do not regard route operations as important, but it is suspected that is the case due to a long

69

history of training exercises that place no emphasis on sustained route operations. A quick study of Vietnam, Korea, Afghanistan, or Chechnya must convince any commander otherwise.

Route Control

Route control is the heart of route operations and the one aspect most often ignored or poorly coordinated and synchronized the brigade and battalion commanders and staffs. This point must be made clear, the brigade road network, to include the MSRs and ASRs, is the planning and execution responsibility of the commander and full staff, not just the S4 or forward support battalion commander. It is not an after thought, but rather part of the operations plan that is integrated with the maneuver plan, and in fact, may be the entire maneuver plan if the situation dictates that kind of response. FM 55-10 provides a good baseline for route control operations at brigade and battalion level.

The typical brigade faces two significant obstacles to effective control of the road net within the brigade AO. One is the lack of clear doctrine within the primary doctrinal resources, and the other is a mind-set to use any road without permission. Such a mindset that has been ingrained from years of limited training opportunities. Very few training scenarios include rigidly controlled roads and most units allow unlimited and uncontrolled movement to support training. The lack of clear doctrine is easy to solve, the second issue will require great discipline and incorporation of doctrinal solutions into training events. The roads can no longer be ignored.

70

Planning and Controlling the Road Network

Doctrine already states that the brigade and battalion S4 recommend MSRs to the S3 and commander. However, beyond that little exists. What follows is a recommended flow of events to select, plan, and control a road net that supports the entire brigade.

Upon occupation of an assigned AO the brigade should conduct route reconnaissance of all roads, trails, waterways, and rail lines as dictated by the situation. That information is disseminated to the staff via an overlay with route capabilities and limitations. Based on that reconnaissance, the situation, and the needs of the unit, the S4 will recommend an MSR and ASR as well as any other route needed to support operations. Lacking knowledge to make recommendations, the S4 should request a reconnaissance to occur through the S3. It is unwise for a single vehicle from the S4 or forward support battalion to execute this mission alone. Higher headquarters may direct, and probably will direct, the use of specific MSRs and ASRs within the brigade sector for use by divisional and nondivisional units.

Once all routes have been identified, investigated, and selected the S4 and the rear command post, in conjunction with higher and lower headquarters, needs to identify critical information about the road net and relay this information up and down and laterally. The S4 and FSB cannot do this alone, it is a staff effort at brigade level and integrated to all battalions and separate companies, platoons, and detachments within the AO. A reference list of planning considerations and personnel responsible is included within appendix A.

The identification of the tasks related to planning and controlling the road network; the identification as to who is responsible for managing the task; and the

establishment of reporting procedures are key to creating situational awareness for all personnel planning and conducting route operations. This will prevent the lone supply sergeant, the vehicle recovery team, the command sergeants major, or the resupply convoy from the corps support group from bumbling into a minefield located by a scout team hours earlier. It is a deliberate part of planning, one that has been taken for granted due to a steady diet of training exercises that do not use routes except in a purely administrative manner.

Route Security

Route security is exceedingly difficult to achieve and maintain for any length of time along anything but the shortest of routes. It must be a combined arms operations And include all BOS and full staff participation. It is very easy to state in a plan that an MP platoon will conduct patrols and establish TCPs along a certain route. In practice, however, this task is difficult as crew fatigue, not to mention mechanical or enemy inflicted losses, will quickly wear down a seven or ten vehicle platoon trying to "secure" a ten kilometer stretch of forested road. Unfortunately, this is often the answer given in a plan. It only takes a few moments to place a land mine, take a sniper position, or establish an ambush. That only addresses a guerrilla type enemy. Once the enemy is provided with air assault capability or a vehicle mounted raid capability, route security demands even greater resources.

There seems to be a fundamental misunderstanding on the part of planners between route security, convoy escort, and convoy security. They are not the same. Route security keeps the entire route clear and is a very extensive and intensive mission. Convoy escort, done properly as per ARTEP 17-487-30-MTP, will look a lot like an area

72

security mission and is almost as extensive as route security. Convoy security only provides immediate local security to the convoy. This often takes the form of ring-mounted weapons on supply trucks, infantry in open trucks, MP or scout escort with gun trucks, or perhaps a platoon of light armor or tanks moving directly with the convoy. Convoy security provides at best, a reaction to ambush or mines, while convoy escort and route security search ahead and along the flanks and rear of a convoy before it arrives in an area. Convoy security, without any effort at route security or control, often results in the lead vehicle detecting a mine or ambush the hard way in an explosion. Taken together as a whole, they are complimentary and will achieve that synergistic effect the Army strives for.

Route security takes huge amounts of troops and resources prevent enemy interdiction of roads and to ensure they remain clear. Often, this is simply not practical over great distances as the Germans discovered on the Eastern Front during World War II. However, doctrine and TTP already exists in FM 17-95 and the associated task, Conduct Route Security (17-1-9406.17), within ARTEP *17-385-MTP*. There are several tasks that provide guidance as follows: Conduct Route Security (17-1-9406.17-00DS), Conduct Battlefield Circulation (17-1-9405.17-00DS), Conduct Area Security (17-1-9408.17-00DS), and Conduct Roadblock and Checkpoint Operations (17-2-2324.17-00DT). As noted in chapter 4, some of these tasks were weak in terms of engineer planning, but combined these doctrinal resources with the detailed route clearance information from Appendix E of FM 3-34.2, and units will have a good guideline for planning and executing route security. Planners simply need to understand that taken individually by single unsupported units, route security will most likely fail.

It is unlikely that a brigade, conducting operations on its own, will conduct route security, as it will consume too many resources to accomplish this mission. Short sections of routes may be secured for short times, but no more unless the entire brigade has been tasked with route security by higher headquarters. It is more likely to see a company team escort mission or convoy security initiated. The S4 and the FSB must recognize when the situation dictates a proper convoy escort mission versus a simple convoy security mission.

Convoy Planning and Security

Due to limited forces within a brigade and competing requirements, convoys will more than likely provide their own security. While this is the least preferred option, it is the most likely. This situation is where most units lose equipment and personnel at the JRCT. Personnel assigned to the convoy are usually not trained in convoy procedures or have not conducted convoy operations together because most of the drivers consist of who is available as the time of the mission. As a result, battle drills are non-existent. Practical experience from Bosnia, in conjunction with the engineer school, have generated a convoy checklist that will help guide convoy commanders in their own planning process and preparation for convoys. This information is provided in Appendix A for easy reference.

The convoy planning and preparation checklist within appendix A may seem very large, but once implemented as part of SOP or a battle drill for convoy operations, it will become second nature. This is especially important for a road net that crosses multiple unit boundaries or multi-national boundaries. Many of the items in the checklist are noted as problems within JRTC trend reports. These figures for convoy planning come

74

from Training Circular, 7-98-1, *Stability and Support Operations Training Support Package*. These are particularly applicable as planning guidelines due to increased involvement by brigades in SSCs.

Planners must bear in mind that convoy security, at best, is a reaction to an enemy or problem on the route. If the situation is severe enough to call for convoy security, then it most certainly is going to require some type of clearance operation. Planners would be well advised to request that a convoy clearance force be identified and readily available when needed.

Route Clearance

Route clearance planning and execution is the last resort when route security fails or when insufficient forces are available to secure the route. If enemy contact has occurred along any routes within the brigade, the assumption must be made by planners that the route has been interdicted in some manner before the lead convoy vehicle makes the discovery the hard way. One of the larger problems documented in JRTC trend reports is that units fail to recognize the threat to the route until too late. Once the threat is recognized the unit tries to keep the route clear with as minimal force as possible not clearly understanding the complexity of route clearance.

As noted in chapters 2 and 4 in this thesis, FM 3-34.2 already outlines detailed planning for route clearance. This information need only be included within a consolidated annex in the primary brigade manuals. Appendix A contains the route clearance planning information located within FM 3-34.2, appendix E and is presented by BOS. It provides the staff planner or commander with an excellent guide to route clearance.

FM 3-34.2 provides a fairly exhaustive list of considerations beyond this information that should provide plenty of planning and execution guidance for any organization. This information also is in agreement with TC 78-9-1, *Stability and Support Operations Training Support Package*. FM 3-34.2 also provides significant TTPs for individual personnel and equipment, which is very useful.

Areas For Further Research

At the beginning of the research for this thesis the information contained within JRTC trend reports and BCTP perceptions indicated a severe problem whose most likely culprit was bad or missing doctrine and TTP. In review, the only missing significant piece is doctrinal guidance on controlling routes within a brigade sector. To a certain degree FM 55-10 does explain how to control routes, but some adjustment is necessary to make it work at the brigade level. Route control and route clearance, while not in one easy to access location or format, do exist.

Lack of adequate training and focus appears to be a larger contributor to the continued failure of units properly executing route operations at brigade level. The manner in which junior officers are trained, officer professional development programs, faster promotion rates, personnel turn over and its impact on training, amount of training time, training focus and curriculum at CAS3 and resident CGSOC need to be reviewed as it is reasonable to assume that they all contribute to weak proficiency.

Summary

The US Army does have good doctrine in FM 17-95, FM 3-34.2, and FM 55-10 to execute route security and clearance. Route control is weak, and therein lies the problem, as there is no well-defined doctrine to tie everything together. This chapter has provided

recommended sources and doctrinal, and TTP methodology for executing all three major components of route operations. This thesis provided sources for officers to use in planning considerations and pointed out possible misconceptions and some related doctrinal problems.

This thesis raised some questions on the quality of professional training received by officers and whether or not this training adequately addresses relevant issues.. It also raises the question as to why the primary armor and infantry doctrinal manuals do not coherently address route operations. This must be fixed unless it is expected that every officer will conduct thesis research to locate answers to simple doctrinal questions on common tactical situations. The bottom line is that the US Army will face enemies that know all too well that US Army supply lines are the weakest link in the operational chain and vulnerable to interdiction. As it stands today, JRTC and BCTP trends continue to report that maneuver brigades are currently unprepared to meet that challenge but this is not fully the fault of doctrine and TTP.

APPENDIX

TECHNIQUES FOR CONDUCTING ROUTE CONTROL, CONVOY PLANNING, AND ROUTE CLEARANCE

To aid the staff officer in planning for route control, convoys, and route clearance the following figures are provided. This is a distillation of the doctrine and TTP concerning route operations within a brigade AO This checklist is not meant as a directive list, only a recommendation of basic elements. Units must always consider their own special conditions and capabilities.

Route Control Planning Example

Responsible Staff	Planning Action
S3 and S4	Identify Routes: A route is any specific section of road or trail necessary to the brigade or battalion operation with a clear start and end point. Each route, no matter how long or short, must be identified, named in accordance with SOP, and tracked regardless if identified as an MSR or ASR or not.
S3, S4, and FSB	MSRs and ASRs are recommended by the S4 and FSB based on higher headquarter guidance, equipment requirements, mission needs, and METT-TC. Once recommended the S3 approves and the S4 disseminates via operations orders or fragmentary orders
S3 and S4	Critical Checkpoints: These include the start and end points of routes, any traffic control points (TCPs), roadblocks or guarded vehicle checkpoints, choke points or danger areas, road surface changes, major intersections, unit boundaries, ambulance exchange points, logistic release points, or any other point or checkpoint dictated by mission requirements. All points are coordinated between the S3 and S4
S4 and FSB	The BSA entrance and exit: This point is the most critical for outbound and incoming convoys to the BSA. It is at this point that convoys receive current briefings on route conditions and the situation within the brigade area. This is the point at which all units and checkpoints along the route are notified of a convoy exiting or entering the brigade road network. Incoming convoys will relay route information and any intelligence the convoy collected while enroute.

Responsible Staff	Planning Action
S3, S4, and any effected unit	Unit Coordination: Convoys and the controlling headquarters must coordinate movement with the unit that owns the ground through which the route passes and vice versus. The unit responsible for the ground through which the route passes is the responsible headquarters even if it is just a platoon and as such must have communications with route and convoy headquarters. This must occur for the entire length of the route and must take into account any unit that may be able to observe the route, but not necessarily be in the sector the route passes. This is important due to long range day and night sight equipment and the possibility of fratricide as well as intelligence those assets may collect on the portions of the route that may be observed. There must be a common set of graphics and radio net for reporting purposes so that any unit on or in contact with the route has common situational awareness. Aviation units, unmanned aerial vehicles, and air force assets should be considered as well as any ground unit. The unit S3 and commander must be involved for this to occur.
S3, S4, FSB, and tasked units	Reaction forces: Reaction forces are organic persons from base and base clusters that have responsibility to react to Level I threats. The composition of a reaction force is any reserve, tactical combat force, military police, cavalry, artillery, air defense artillery, engineer, tactical unit, or host nation police operating along the route. The controlling headquarters for the convoy and the route must coordinate with those units for support when applicable.
S3, S4, FSB	Higher headquarters guidance: Any higher directed actions along the route are accounted for and the higher commander has provided clear guidance on road net operations. The guidance must be realistic and take into account length of the route, time the route will be used, resources and units allocated, and enemy situation. Any higher headquarters restrictions, especially guidance from corps and joint headquarters must be communicated to lower units.
S4 and FSB	Route status: The capabilities, limitations, and current condition of the route. Maximum vehicle capacity, turn radius, slope, and all other considerations clearly outlined in existing route reconnaissance tasks must be considered.

Responsible Staff	Planning Action
S3, S4, and any effected unit	The current route control status of each route; open route: Any unit may use the route; supervised route: convoy size, type, and vehicle type are controlled; dispatch route: permission is required to use the route under all circumstances; reserved route: only specific units or vehicles may use the route; prohibited route: the route is closed to all traffic due to weather, obstacles, friendly operations, enemy, or maintenance.
S3, S4, FSB, and tasked units	The current condition of the route; green: the route is open and usable to the largest vehicle type allowed on that route, no enemy activity; amber: the route is damaged, reported enemy activity along the route in the last 12 hours, poor weather conditions, or heavy traffic; red: route has had enemy activity within last 12 hours, partially blocked due to weather or damage, not been cleared or secured within last six hours; black: no movement allowed due to route blockage, ongoing friendly or enemy activity, route has not been cleared or secured.
S3, S4, FSB, FA	Communications: Communications and retransmission capability nodes along the road network are identified and integrated. All units along the route or that can influence the route with fires of any type must have communications.
S3, S4, all units	Sub-unit integration: All battalions, separate companies, platoons, detachments, and units operating within the brigade AO are integrated into the road network plan and are familiar with brigade SOP.

Convoy Planning Checklist

This checklist comes from Training Circular, 7-98-1, *Stability and Support Operations Training Support Package*. Many of the elements also match with recommended planning points located in other manuals and is fairly inclusive. Again, each unit must review and fit any planning guidance with their own requirements and commander's guidance.

OPERATION ORDER

1. SITUATION:

a. Enemy Forces.

   (1) Weather and Light Data.

      (a) Temperature.

      (b) Wind speed and direction.

      (c) Forecast.

      (d) Light data.

      (e) Effect on convoy operations.

   (2) Terrain and Vegetation.

      (a) Description.

      (b) Effect on enemy.

      (c) Effect on convoy.

   (3) Road Conditions.

      (a) Description.

      (b) Construction materials.

      (c) Substantial loads and speeds/considerations.

      (d) Road width.

      (e) Road signs.

      (f) Bridge classification/width.

      (g) Overpass restrictions (height).

      (h) Fords.

   (4) Identification of Enemy Forces.

      (a) Uniforms and headgear.

      (b) Weapons, vehicles, aircraft type, and markings.

   (5) Enemy Locations.

      (a) Suspected.

      (b) Known.

      (c) Minefields.

      (d) Obstacles.

   (6) Disposition.

      (a) Strength.

      (b) Morale.

      (c) Reinforcement capability.

      (d) Expected course of action.

b. Civilians/Noncombatants: ROE.

   (1) Populated areas.

   (2) Probable reaction.

c. Neutral Nation Observers.

   (1) Uniforms.

   (2) Locations.

d. Friendly Forces.

   (1) Mission next higher headquarters.

   (2) Intent next higher headquarters.

   (3) Locations of adjacent and supporting units.

   (4) Planned actions of adjacent and supporting units.

   (5) Units providing fire support.

e. Attachments/Detachments.

   (1) Effective times.

   (2) Unit identification.

   (3) Type of control.

2. MISSION: Who, what (task), when, where, and why (purpose).

Figure 2. Example Convoy Operation Order Example (TC 7-98-1).

1

3. EXECUTION:

a. Concept of the Operation. Purpose.

b. Maneuver (task and purpose for each subelement).

  (1) Fire support (task and purpose).

    (a) Target list.

      1. Target number.

      2. Locations and terrain features.

      3. Description, munitions, size.

      4. Type (linear, and so forth).

      5. Purpose.

    (b) Priority of fires.

    (c) Control of fires.

    (d) Accessed/requested (On...Channel...Frequency)

  (2) Subunit mission.

    (a) Preparation during convoy movement and during halts.

    (b) During de-trucking and unloading.

  (3) Detailed instructions.

    (a) Load plan.

      1. Number and type vehicles.

      2. Crew and vehicle assignments.

      3. Gross vehicle weight restrictions.

      4. Distribution of weapon systems (TOW, MK 19, caliber .50, AT4, M60)

      5. Sequence of loading and unloading.

    (b) Order of movement.

    (c) Formations day and night.

    (d) March interval and speed.

      1. Day.

      2. Night.

      3. Various road segments and terrain.

    (e) Routes.

      1. Primary.

      2. Alternate.

      3. Known danger areas.

      4. Intersections.

      5. Planned fire support target locations.

      6. Checkpoints.

      7. Phase lines.

      8. Route clearance plan.

      9. Traffic control points.

      10. Staging or marshalling area.

      11. Start and release points.

      12. Destination point and de-trucking point.

    (f) Actions on enemy contact.

      1. Near ambush.

      2. Far ambush.

      3. Booby trap.

      4. Mechanized and armor confrontation.

      5. Sniper contact.

      6. Aerial attack.

      7. Indirect fire.

    (g) Actions at danger areas.

      1. Known intersections.

      2. Fording sites and bridges.

      3. Large open areas.

      4. Defiles, sharp inclines, and overpasses.

Figure 2. (Continued).

5. Roadblocks, traffic control points.

(h) Actions at obstacles.

  1. Minefields.

  2. Obstructive debris.

(i) Actions upon vehicle emergency and accident recovery procedures.

(j) Actions upon short halts.

(k) Actions upon long halts.

  1. Unplanned (longer than 30 seconds).

  2. Who dismounts. How far they push out to establish local security perimeter.

(l) Treatment of escorted noncombatants.

  1. Translator, communication, liaison between senior civilian leader and platoon leader.

  2. Civilian provisions (warmth, rations, water, and hygiene).

(m) Driver rotation and relief during extended drives.

(n) Driving during limited visibility.

  1. Driver and track commander wear night observation devices.

  2. Reduce speeds.

(o) Catch-up during break in contact.

c. Coordinating Instructions.

(1) MOPP level.

(2) Preventive maintenance checks and services completion time.

(3) Marshall time and place.

(4) Technical inspection time (maintenance personnel).

(5) Initial inspection time and place.

(6) Communications exercise time (OIC/NCOIC).

(7) Briefback time by key leaders.

(8) Rehearsal time.

(9) Final inspection time.

(10) Load time.

(11) Start point time.

(12) All vehicles will have a designated track commander.

(13) All vehicles will have at least one map for each vehicle and at least one person with the operations graphics committed to memory.

4. SERVICE AND SUPPORT

a. Rations and Water.

(1) Rations and water for each man.

(2) Emergency rations.

b. Equipment/Supplies.

(1) Basis of issue items/pioneer tools.

(2) Rucksack plan.

(3) Resupply plan.

(4) Refuel plan.

c. Maintenance Plan.

(1) Vehicle services.

(2) Recovery plan.

(3) Bumper number and location of mechanics in each chalk.

(4) Bumper number and location of tow bars.

d. Method of Handling Wounded and Dead.

(1) Location of medical vehicles and aidmen.

(2) Method of evacuating casualties.

e. Evacuation of Captured Personnel and Equipment.

(1) Evacuation and handling of enemy prisoners of war (Geneva Convention and five Ss).

(2) Evacuation, processing, and reporting of captured equipment, documents, and intelligence requirements.

Figure 2. (Continued).

5. COMMAND AND SIGNAL

a. Command.

(1) Chain of command.

(2) Location of key leaders and radiotelephone operators.

b. Signal.

(1) Each vehicle will have at least one radio.

(2) Key leaders will have at least two radios in their vehicles.

(3) Channels, frequencies, and call signs for internal communications and external, adjacent, supporting units.

(4) Authentication table, SOI, current time period in effect.

(5) Code words.

(6) Brevity codes, operational schedules.

(7) Location of fill devices.

(8) Number combinations, challenges, and password by time period.

(9) Arm-and-hand signals.

(10) Pyrotechnics, flares, and other signals.

(11) Personnel status, logistics status, and status reports required and time sent.

Figure 2. (Continued).

STATUS   EVENT

___ Status of vehicles (with tow bars), weapons, and personnel manifest.

___ Weather update.

___ Intelligence update (enemy sightings, obstacles).

___ Operations update (by battalion S3).

___ Status attachments (who, what, mandatory attendance at warning order, operation order, rehearsals).

___ Approved routes (with alternatives) and control measures (copies provided to each track commander). Remain overnight plan, if required. Bump plan. Include dispersion plan at destination.

___ Fire support plan with overlay (copy provided to each track commander).

___ Warning order prepared and issued(within 1 hour of receipt of mission).

___ Air mission briefing for aviation contingencies.

___ Current rules of engagement briefing.

___ Logistical support (static security posts, fuel, casualty evacuation, maintenance, and recovery).

___ Call signs and frequencies of stationary elements convoy will pass through and communications exercise.

___ Reserve force plan (call signs and frequencies).

___ Operation order prepared and issued.

___ Priority rehearsals—actions on contact, breach obstacle, react to indirection fire, actions at halts, and MOUT.

___ All units have sufficient Class I and V.

___ All vehicles inspected for contraband and bombs and so forth.

___ Distribution plan for critical and sensitive items.

___ Route status briefing.

___ Lane marking techniques and materials verified.

Figure 3. Example of convoy commander's coordination checklist.[2]

INTELLIGENCE:

- Support staff IPB process to identify choke points, bridges, tunnels, critical road junctions, and populated areas.
- Provide intelligence brief and update to all commanders to include 1:50,000 enemy situation overlay.
- Maintain situation map.
- Maintain incident map to facilitate pattern analysis.
- Maintain threat order of battle database.
- Debrief convoy security elements and commanders.
- Coordinate for Quickfix and unmanned aerial vehicle support.

MANEUVER:

- Order of movement: advance guard, main body, rear guard.
- Distance between vehicles based on METT-T.
- The convoy commander operates on the following nets:
  — Convoy internal net.
  — Battalion-level command net.
  — Fire support net.

- The battle drill for the convoy when encountering an ambush is—
  — Main Body (the escorted unit) Actions.
    - Main body returns fire and attempts to fight through ambush.
    - If forces are split, elements forward of the ambush move to the next static security post.
    - Elements decisively engaged dismount and provide local security.
    - Elements not in contact secure themselves and await commitment of the reserve or additional forces from static security posts (antitank/military police).

  — Security Element Actions.
    - Element in contact returns fire to suppress identified enemy positions.
    - Vehicle drivers maneuver to allow gunners to provide continued suppression of the enemy positions.
    - Convoy commander calls for and adjusts indirect fire on positively identified enemy positions.
    - Ground infantry deploys to eliminate the enemy position within capabilities.

- Convoy commander reports and requests assistance from reserve force, if required.
  — Aviation asset designates landing zones.
  — Reserve force arrives and deploys.
  — Convoy commander reorganizes and continues mission.
  — If breach is required, lead security provides overwatch while engineer squad breaches. Rear security provides the reserves.

— Reserve Force (air assault or heavy force).
  — Brigade tactical operations center alerts the reserve company commander.
  — Company commander designates reaction platoon, hot loads air assets, or loads Bradleys, and deploys them on order (within 30 minutes).
  — Company commander deploys with reaction platoon.
  — Executive officer leads the remainder of the reserve company, if necessary.
  — Reaction force deploys.
  — Reserve force contacts the convoy commander on the battalion command net.
  — Reserve force company commander takes control of combat operations to allow the convoy commander to continue.

— Security at Halts (two types).
  — Short halts.
    - Main body closes to within 25 meters, pulls to one side of the road, and awaits instructions. Lead vehicle determines which side to stop, others follow.
    o Convoy stays loaded up and ready to move.

  — Long halts.
    o Main body closes to within 25 meters.
    o Vehicles halt in place; convoy commander determines if the convoy remains in place or pulls to one side of the road.
    o Infantry platoon dismounts to secure the main body.
    o Drivers and track commanders dismount to secure vehicles.
    o Convoy is prepared to move with 5 minutes.
  — Reaction to indirect fire.

Figure 4. BOS Considerations.

- o Convoy increases speed and moves out of impact area.
  Vehicles move forward to rally at next static security post.
- o Vehicles do not drive into the impact area. If rounds are observed landing to the front, these vehicles conduct a short halt until they can move through.

FIRE SUPPORT:

- Fire support assets may be positioned along the route.
- A target list with priority targets is provided to the convoy commander and supporting indirect fire assets.
- Convoy commander shifts priority targets as convoy moves along the route.
- Convoy commander coordinates fires with the maneuver commander who owns the ground.
- Attack helicopters or USAF CAS aircraft cover areas beyond range of artillery.
- Q36 or Q37 radars are used to detect and employ counter fire against enemy indirect fire assets that attack the convoy.

MOBILITY/SURVIVABILITY:

- Precede each convoy with an M1 tank section with mine rollers to protect the convoy from hitting a minefield that was emplaced after the route clearing element has cleared the route. In the event the M1 tanks are not available, the attached engineer squad moving with the advanced guard must conduct hasty clearing based on IPB and the minefield indicator checklist.
- Assume all obstacles are booby trapped.
- Do not cut trip wires.
- Do not attempt to move discovered mines. These mines should be blown in place.
- Do not shoot at mines.
- Do not operate radios or electronic equipment in the vicinity of wires of discovered mines.
- Do not attempt to bypass discovered mines.
- Hasty or deliberate route sweeping operations are slow and deliberate; conduct sweeping operations only in the daytime.
- Be suspicious of dummy, surface-laid mines; no two minefields will be exactly alike.

- Detect mines and report them.
- Do not group personnel together; always stay 25 to 50 meters apart.

AIR DEFENSE:

- Despite air supremacy, the possibility of air attack should be considered.
- Air defense officer and S2 develop an aerial IPB.
- Use passive air defense measures:
  - Conceal the load.
  - Eliminate glare by using mud, tape, cardboard, or camouflage nets to cover headlights, mirrors, and portions of the windshields.
  - Try to reduce dust clouds. Reduce speed to reduce dust.
  - Use routes that offer concealment.
  - Use air guards.

COMBAT SERVICE SUPPORT:

- Inspect all vehicles for bombs and contraband.
- Convoys supported by a logistical and medical package operating out of the brigade support area.
- Main support battalion responsible for reinforcing (sandbag floors and sides) all troop-carrying vehicles.
- Primary means of medical evacuation is air and secondary means is ground. Conduct a daily air mission briefing.
- Dedicate an ambulance for each convoy.
- Each convoy is prepared to self-recover up to two vehicles and evacuate them to the nearest static security post.
- Static security posts are designated as collection points for enemy prisoners of war, casualties, and maintenance.

COMMAND/CONTROL:

- Command and control of convoys operating on the lines of communication is the responsibility of a battalion-level command.
- Control, dispatching, clearance, and reporting are coordinated through the forward support battalion or brigade S4 on the brigade administrative/logistics net.
- Fire support call signs and frequencies are disseminated.
- Convoy commander must receive a movement order.
- The escorted unit must rehearse battle drills.

Figure 4. (Continued).

- Rehearsals are conducted to integrate and synchronize all elements of the convoy.
- Convoy size of the escorted unit is no more than 20 vehicles including the security element.
- Battalion commander determines command and control for the reserves.
- Convoys are broken down into serials of five vehicles with an NCO in charge of each vehicle.
- Serial commander must have communications with the convoy commander (PRC-126).
- Convoy communications are checked before the start point.
- Aerial platforms and cellular phones used as alternate means of communications.
- Aviation in support of convoy operations must be on the convoy commander's frequency.

SPECIAL OPERATIONS (Civil Affairs/Psychological Operations):

- Employ PSYOP loudspeakers to assist in dispersing civilians who hinder convoy movement.
- Request civil affairs team assistance immediately if civilian crowds are blocking the main supply route.
- Ensure each truck has cards in native language requesting civilians to disperse.
- Report civilian requests for food, medical treatment, and so forth; do not stop to assist.

MINEFIELD INDICATORS:

- Damaged vehicles.
- Dead animals.
- Avoidance by local population.
- Signs of digging.
- Signs of concrete removal.
- Holes or grooves in the road.
- Boxes or parcels placed along the road or shoulder of the road.
- Parked vehicles, bicycles, without operators.
- Wires on the road surface or extending onto shoulders of the road.
- Metallic devices on road surface.
- Evidence of vegetation disturbance along shoulders of the road.

- Evidence of mine peculiar supplies: wrenches, shipping plugs, wrapping paper, safety collars from fuses.
- IPB templating of likely ambush sites.
- Knowledge of likely threat mines and recognition of threat mines.
  — Observation of disturbances in previous tire tracks.
  — Disturbance of road potholes or puddles.
  — Differences in amount of moisture or dew on road surface.
  — Be alert for any signs posted on trees that covertly alert the location populace to presence of mines.
  — Difference in plant growth (wilting, changed colors, or dead foliage.

Figure 4. (Continued).

Planners must bear in mind that convoy security, at best, is a reaction to an enemy or problem on the route. If the situation is severe enough to call for convoy security, then it most certainly is going to require some type of clearance operation. Planners would be well advised to request that a convoy clearance force be identified and readily available when needed. Convoys at JRTC often contact the enemy or an obstacle and wait stationary for hours waiting for clearance or additional security to arrive.

Route Clearance

The following figures are taken from FM 3-34.2, *Combined Arms Breaching* with some additional guidance on which staff provides input. FM 3-34.2 provides a fairly exhaustive list of considerations beyond this information that should provide plenty of planning and execution guidance for any organization. This information also is in agreement with TC 78-9-1, *Stability and Support Operations Training Support Package*. FM 3-34.2 also provides significant TTPs for individual personnel and equipment which is very useful. Both heavy and light clearance forces are addressed as well as various techniques of clearance that do consider combat fore capabilities and limitations.

Responsible Staff	Figure 5. Route Clearance Planning Checklist.[4]
	Planning Action

All BOS must provide input	INTELLIGENCE
	Identify choke points, bridges, tunnels, critical road junctions, and built-up areas. These are the most likely locations for obstacle emplacement. However, depending on the enemy's overall mission, it may not always emplace obstacles at these locations. This is especially true if the enemy's goal is to psychologically disrupt convoys.
	Maintain a situation map that reflects the most current intelligence information.
	Maintain an incident map with a graphics overlay to facilitate a pattern analysis.
	Maintain a threat order-of-battle database, such as how the enemy has disrupted LOC in the past.
	Develop a detailed ISR plan that incorporates modern battle-space techniques and systems, such as ground sensors, forward-looking airborne radar, and satellite images. As a minimum—
	  • Coordinate for UAV support, if available.
	  • Develop infiltration routes to support recon and security at likely enemy ambush sites.
	  • Develop an estimate of the impact to COBs (local nationals, NGOs, and PVOs).
	  • Conduct a daily flight over the area to provide up-to-the-minute intelligence.
	  • Coordinate with the USAF to periodically check the route (for example, use an AC-130 (Specter gunship).
	Establish liaison with the host nation, NGOs, and SOF.
	Provide detailed OBSTINTEL, including—
	  • Description of mines or explosive devices most likely encountered.
	  • Composition and pattern of obstacles.
	  • Enemy actions or techniques used during obstacle emplacement.
	Provide intelligence updates on mine-hazard areas to company team leaders before departure. This should be in the form of a 1:50,000 enemy SITEMP overlay (confirmed and suspected/templated).

Responsible Staff	Planning Action
S3, S4, and any effected unit	**MANEUVER** Provide personnel for TCPs. Secure flanks (at least 100 meters) and the far side of suspected and known obstacle locations. Close the route to US-controlled traffic during route-clearance operations to minimize the target presented to enemy forces. Identify and clear potential sniper positions before beginning obstacle reduction or clearance. Provide security for the cleared route. Plan the building of static security points along the cleared route to reduce the probability of reseeding.
S3, S4, FSB, and FA	**FIRE SUPPORT** Plan smoke for templated obstacle locations. Position mortars to ensure continuous coverage of the operation (one technique is to move under the control of the support force). Prepare fires within the tactical rules of engagement. Designate obstacle clearance sites as critical friendly zones (CFZs) and no-fire areas. Plan suppression fires on enemy elements capable of placing direct or indirect fires on the points of breach.
S3, S4, FSB	**ADA** Assist the S2 with the threat-air portion of the IPB. Use the following passive air-defense measures: • Eliminate glare by using mud, tape, cardboard, or camouflage nets to cover headlights, mirrors, and portions of windshields. • Reduce dust clouds by reducing speed. • Plan routes that offer natural concealment. • Use air guards. Increase the distance between vehicles. Incorporate Stinger missile teams into the support force.
S4 and FSB	**SPECIAL OPERATIONS** Ensure that PSYOP/CA support the counterintelligence effort by conducting civilian interviews. Direct civilians along the MSR to the displaced-personnel holding areas or along the routes that the unit has indicated for use. Employ PSYOP/CA teams forward to disperse civilians and provide traffic management to isolate the route during clearance operations.

Staff	Planning Action
S3, EN, and any effected unit	**MOBILITY/SURVIVABILITY** Report, clear, and mark obstacles and explosive devices to facilitate unimpeded movement. Ensure that lane marking meets the standards directed by the supported commander and that materials and patterns are standard throughout the route. Consider including road-repair equipment and material as part of the breach force (for example, a 5-ton dump truck filled with soil and an ACE to spread the soil). Keep all radios, electronic equipment, and aviation assets at a safe distance during reduction operations. Block uncleared roads and trails that branch from the route being cleared. This protects units from inadvertently traveling an uncleared route. Debrief the chain of command and the TF S2 on the location, composition, and orientation of all obstacles cleared and encountered. This assists the S2 in IPB pattern analysis. Provide detailed OBSTINTEL on minefields, including— • Description of mines or explosive devices • Composition and pattern of obstacles. • Enemy actions or techniques used during obstacle emplacement.
S3, S4, FSB, tasked units	**CSS** Ensure that clearance operations are supported by a logistical/CHS package. Plan for air and ground evacuation of casualties. The preferred evacuation method is by air; the routine method is by ground. Conduct an air-mission brief with air-ambulance assets, including pickup zones and markers. Rehearse procedures for evacuation requests. Ensure that the medical team consists of one or two ambulances. Locate the medical team with the support force. Identify the ambulance exchange point along the route to be cleared. Ensure that appropriate personnel wear flak vests or IBASIC (Figure E-5, page E-12). Ensure that all vehicles have tow cables in the front and the rear, and plan recovery assets for extraction purposes. Ensure that all vehicles carrying troops have hardening (sandbags on floors and sides). Provide MP and explosive-sniffing dogs to help in clearance operations and provide security for convoys during and after clearing operations.

Staff	Planning Action
All Units and CPs	**C 2** Designate a controlling, coordinating, and supporting HQ for route movement. Designate, recognize, and include the following minefield indicators as part of company-team rehearsals: • Dead animals. • Avoidance by the local population. • Signs of digging or concrete removal. • Disturbances in a road, such as holes or grooves. • Boxes or parcels placed along the road/shoulder. • Parked vehicles or bicycles without operators. • Wire on the road surface or extending onto the shoulders. • Evidence of vegetation disturbance along shoulders. • Evidence of mine-peculiar supplies such as wrenches, shipping plugs, wrapping paper or safety collars from fuses. • Posted signs that covertly alert the local population to the presence of mines. • Disturbances in tire tracks. Designate a reserve force (at least platoon-size) that is mechanized or air-assault capable. Ensure that proper rehearsals are planned and conducted. As a minimum, the unit should rehearse actions at the obstacle, actions on enemy contact, casualty evacuation, and control of COBs. Ensure that the unit has a clear understanding of the mission, the intent, and the end state. For example, the clearing-unit commander should understand that his unit must clear the road width, including the shoulders, and secure the route. Ensure that the unit— • Controls the movement of all personnel and equipment on route. • Prepares a risk assessment of the mission before issuing the OPORD. • Tracks the status of routes based on the amount of time since the route was cleared and the intelligence and enemy situations. • Tracks the progress of the clearance operation and integrates it into the maneuver and CSS plans. • Determines the route length, using clearly definable start and end points. • Coordinates with adjacent units, the host nation, NGOs, PVOs, and SOF. • Sets priorities for the route-clearance element.

[1] US Department of the Army, TC 78-9-1, *Stability and Support Operations Training Support Package* (Washington DC: Government Printing Office, June 1997), 2-338 to 2-341.

[2] Ibid., 2-341.

[3] Ibid., 2-342.

[4] US Department of the Army, FM 3-34.2, *Combined Arms Breaching* (Washington, DC: Government Printing Office, August 2000), E-1.

BIBLIOGRAPHY

Government Publications

Foreign Military Studies Office. *The Bear Went Over the Mountain: Soviet Combat Tactics in Afghanistan.* Portland, OR: Cass Publishers, 1998.

US Department of the Army. ST 3-0, *Army Operations.* Fort Leavenworth, KS: US Army Command and General Staff College, October 2000.

_____. FM 17-95, *Cavalry Operations.* Washington DC: Government Printing Office, December 1996.

_____. FM 3-34.2, *Combined Arms Breaching.* Washington, DC: Government Printing Office, August 2000.

_____. FM 71-100, *Division Operations.* Washington DC: Government Printing Office, August 1996.

_____. ARTEP 71-3-MTP, *Mission Training Plan for the Heavy Brigade Command Group and Staff.* Washington, DC: Government Printing Office, February 1997.

_____. ARTEP 7-10-MTP, *Mission Training Plan for the Infantry Company.* Washington, DC: Government printing Office, March 2000.

_____. ARTEP 7-8-MTP, *Mission training Plan for the InfantryPlatoon.* Washington, DC: Government Printing Office, March 2000.

_____. FM 55-10, *Movement Control.* Washington, DC: Government Printing Office, February 1999.

_____. FM 100-5, *Operations.* Washington DC: Government Printing Office, June 1993.

_____. *Small Unit Actions During the German Campaign In Russia.* Washington DC: Government Printing Office, July 1953.

_____. FM 71-2, *The Tank and Mechanized Infantry Battalion Task Force.* Washington, DC: Government Printing Office, August 1994.

_____. FM 71-3, *The Armored and Mechanized Infantry Brigade.* Washington DC: Government Printing Office, January 1996.

_____. FM 7-30, *The Infantry Brigade.* Washington, DC: Government Printing Office, October 2000.

_____. FM 3-100.40(DRAG), *Tactics.* Fort Leavenworth, KS: US Army Command and General Staff College, October 2000.

Unpublished Government Documents

BCTP. *Battle Command Training Program Perceptions Briefing.* Fort Leavenworth, KS: BCTP, 18 June 1999.

Center for Army Lessons Learned. CALL, *JRTC Trends, 2nd and 3rd QRTS, FY 97* Fort Leavenworth, KS: CALL Collection, 1997.

Szabo, Ernest A. "Does the Army Have Effective Doctrine for the Conduct of Rear Area Security and the Protection of Support Troops." School of Advanced Military Studies Monograph, Fort Leavenworth, KS, December 1996.

Electronic Sources

Center for Army Lessons Learned (CALL). *Combined Arms Route Clearance Operations Video.* Fort Polk, LA: CALL. 68 min, 1995. Videocassette.

JRTC Trends. *2QFY98 & 3QFY98 NO.99-7,* Fort Polk, LA: Joint Readiness Training Center, accessed 5 February 2001. Available from http://call.army.mil/call /homepage/ctcbull.htm#JRTCbtn. Internet

_____. *4QFY98 & 1QFY99 NO.00-2,* Fort Polk, LA: Joint Readiness Training Center, accessed 5 February 2001. Available from http://call.army.mil /call/ctc_bull/00-2/ta6.htm#5. Internet

_____. *1st, 2nd, 3rd Quarters, FY95,* Fort Polk, LA: Joint Readiness Training Center, accessed 5 February 2001. Available from http://call.army.mil/call /ctc_bull/jr1-3q95/1-3q95tc.htm. Internet
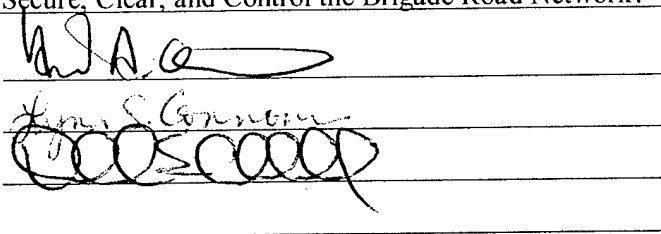
INITIAL DISTRIBUTION LIST

1. Combined Arms Research Library
    U.S. Army Command and General Staff College
    250 Gibbon Ave.
    Fort Leavenworth, KS 66027-2314

2. COL Chamberlain
    CTAC
    USACGSC
    1 Reynolds Ave.
    Fort Leavenworth, KS 66027-1352

3. MAJ Lynn S. Connors
    CADD
    USACGSC
    1 Reynolds Ave.
    Fort Leavenworth, KS 66027-1352

4. Harold S. Orenstein
    CADD
    USACGSC
    1 Reynolds Ave.
    Fort Leavenworth, KS 66027-1352

CERTIFICATION FOR MMAS DISTRIBUTION STATEMENT

1. Certification Date: 1 June 2001

2. Thesis Author: Major Thomas V.Olszowy

3. Thesis Title: Are Combat Units Within A US Army Manuever Brigade's Area of Operation

Prepared and Resourced to Successfully Secure, Clear, and Control the Brigade Road Network?

4. Thesis Committee Members
   Signatures:

5. Distribution Statement: See distribution statements A-X on reverse, then circle appropriate distribution statement letter code below:

(A) B   C   D   E   F   X   SEE EXPLANATION OF CODES ON REVERSE

If your thesis does not fit into any of the above categories or is classified, you must coordinate with the classified section at CARL.

6. Justification: Justification is required for any distribution other than described in Distribution Statement A. All or part of a thesis may justify distribution limitation. See limitation justification statements 1-10 on reverse, then list, below, the statement(s) that applies (apply) to your thesis and corresponding chapters/sections and pages. Follow sample format shown below:

EXAMPLE

Limitation Justification Statement	/	Chapter/Section	/	Page(s)
Direct Military Support (10)	/	Chapter 3	/	12
Critical Technology (3)	/	Section 4	/	31
Administrative Operational Use (7)	/	Chapter 2	/	13-32

Fill in limitation justification for your thesis below:

Limitation Justification Statement	/	Chapter/Section	/	Page(s)
	/		/	
	/		/	
	/		/	
	/		/	
	/		/	

7. MMAS Thesis Author's Signature:

STATEMENT A: Approved for public release; distribution is unlimited. (Documents with this statement may be made available or sold to the general public and foreign nationals).

STATEMENT B: Distribution authorized to U.S. Government agencies only (insert reason and date ON REVERSE OF THIS FORM). Currently used reasons for imposing this statement include the following:

    1. Foreign Government Information. Protection of foreign information.

    2. Proprietary Information. Protection of proprietary information not owned by the U.S. Government.

    3. Critical Technology. Protection and control of critical technology including technical data with potential military application.

    4. Test and Evaluation. Protection of test and evaluation of commercial production or military hardware.

    5. Contractor Performance Evaluation. Protection of information involving contractor performance evaluation.

    6. Premature Dissemination. Protection of information involving systems or hardware from premature dissemination.

    7. Administrative/Operational Use. Protection of information restricted to official use or for administrative or operational purposes.

    8. Software Documentation. Protection of software documentation - release only in accordance with the provisions of DoD Instruction 7930.2.

    9. Specific Authority. Protection of information required by a specific authority.

    10. Direct Military Support. To protect export-controlled technical data of such military significance that release for purposes other than direct support of DoD-approved activities may jeopardize a U.S. military advantage.

STATEMENT C: Distribution authorized to U.S. Government agencies and their contractors: (REASON AND DATE). Currently most used reasons are 1, 3, 7, 8, and 9 above.

STATEMENT D: Distribution authorized to DoD and U.S. DoD contractors only; (REASON AND DATE). Currently most reasons are 1, 3, 7, 8, and 9 above.

STATEMENT E: Distribution authorized to DoD only; (REASON AND DATE). Currently most used reasons are 1, 2, 3, 4, 5, 6, 7, 8, 9, and 10.

STATEMENT F: Further dissemination only as directed by (controlling DoD office and date), or higher DoD authority. Used when the DoD originator determines that information is subject to special dissemination limitation specified by paragraph 4-505, DoD 5200.1-R.

STATEMENT X: Distribution authorized to U.S. Government agencies and private individuals of enterprises eligible to obtain export-controlled technical data in accordance with DoD Directive 5230.25; (date). Controlling DoD office is (insert).